# Final Project

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## **Data Import**

```
cancer_raw =
  read_csv("./data/Cancer_Registry.csv") %>%
  janitor::clean_names() %>%
  dplyr::select(target_death_rate, geography, everything()) %>%
  separate(geography, into = c("county", "state"), sep = ",")
```

## Data varibale dictionary:

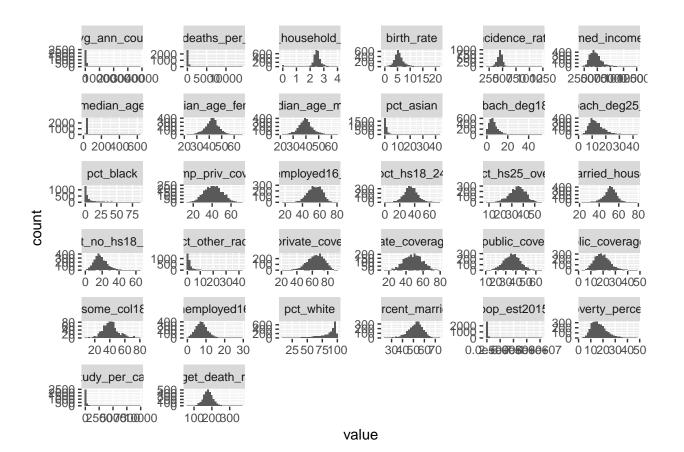
- target\_death\_rate: mean per capita (100,000) cancer mortalities (a)
- avg\_ann\_count: mean number of reported cases of cancer diagnosed annually (a)
- avg\_deaths\_per\_year: mean number of reported mortalities due to cancer (a)
- incidence\_rate: mean per capita (100,000) cancer diagnoses (a)
- med\_income: median income per county (b)
- pop\_est2015: population of county (b)
- **poverty\_percent:** percent of population in poverty (b)
- study\_per\_cap per capita number of cancer-related clinical trials per county (a)
- binned\_inc: median income per capita binned by decile (b)
- median age: median age of county residents (b)
- median\_age\_male: median age of male county residents (b)
- median\_age\_female: median age of female county residents (b)
- **geography:** county name (b)
- avg household size: mean household size of county (b)
- percent married: percent of county residents who are married (b)
- pct\_no\_hs18\_24: percent of county residents ages 18-24 highest education attained: less than high school (b)
- pct\_hs18\_24: percent of county residents ages 18-24 highest education attained: high school diploma (b)
- pct\_some\_col18\_24: percent of county residents ages 18-24 highest education attained: some college (b)
- pct\_bach\_deg18\_24: percent of county residents ages 18-24 highest education attained: bachelor's degree (b)
- pct\_hs25\_over: percent of county residents ages 25 and over highest education attained: high school diploma (b)
- pct\_bach\_deg25\_over: percent of county residents ages 25 and over highest education attained: bachelor's degree (b)
- pct\_employed16\_over: percent of county residents ages 16 and over employed (b)
- pct unemployed16 over: percent of county residents ages 16 and over unemployed (b)
- pct private coverage: percent of county residents with private health coverage (b)
- pct\_private\_coverage\_alone: percent of county residents with private health coverage alone (no public assistance) (b)

- pct\_emp\_priv\_coverage: percent of county residents with employee-provided private health coverage (b)
- pct\_public\_coverage: percent of county residents with government-provided health coverage (b)
- pct\_public\_coverage\_alone: percent of county residents with government-provided health coverage alone (b)
- pct\_white: percent of county residents who identify as White (b)
- pct\_black: percent of county residents who identify as Black (b)
- pct\_asian: percent of county residents who identify as Asian (b)
- **pct\_other\_race:** percent of county residents who identify in a category which is not White, Black, or Asian (b)
- pct\_married\_households: percent of married households (b)
- birth\_rate: number of live births relative to number of women in county (b)

## Look at the distribution of all varibales:

```
cancer_raw %>%
  keep(is.numeric) %>%
  gather() %>%
  ggplot(aes(value)) +
  facet_wrap(~ key, scales = "free") +
  geom_histogram(bins = 30)
```

## Warning: Removed 3046 rows containing non-finite values (stat\_bin).



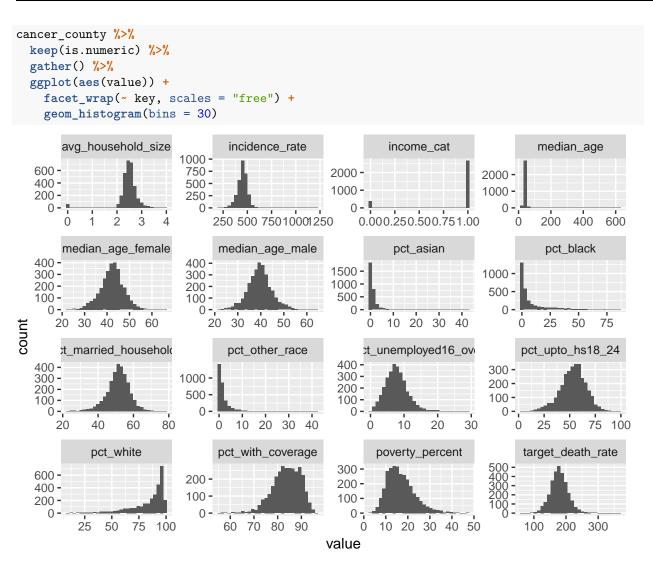
#### Choose variables:

#### Check correlation and distribution:

```
cor(cancer_county) %>%
knitr::kable()
```

	$target\_death\_rate$	$incidence\_rate$	poverty_percent	$median\_age$	$median\_age\_male$
target_death_rate	1.0000000	0.4494317	0.4293890	0.0043751	-0.0219294
incidence_rate	0.4494317	1.0000000	0.0090463	0.0180892	-0.0147332
poverty_percent	0.4293890	0.0090463	1.0000000	-0.0292800	-0.2140010
median_age	0.0043751	0.0180892	-0.0292800	1.0000000	0.1291195

	target_death_rate	incidence_rate	poverty_percent	median_age	median_age_male r
median_age_male	-0.0219294	-0.0147332	-0.2140010	0.1291195	1.0000000
$median\_age\_female$	0.0120484	-0.0091056	-0.1481635	0.1246784	0.9336961
avg_household_size	-0.0369053	-0.1184000	0.0743076	-0.0319441	-0.3431887
$pct\_unemployed16\_over$	0.3784124	0.0999795	0.6551481	0.0185904	-0.1427375
pct_white	-0.1774000	-0.0145098	-0.5094328	0.0350094	0.3980444
$pct\_black$	0.2570236	0.1134890	0.5115297	-0.0171732	-0.2427481
pct_asian	-0.1863311	-0.0081234	-0.1572887	-0.0384239	-0.2383224
$pct\_other\_race$	-0.1898936	-0.2087483	0.0470959	-0.0302765	-0.2666554
$pct\_married\_households$	-0.2933253	-0.1521763	-0.6049528	0.0145036	0.2222777
$pct\_upto\_hs18\_24$	0.2443042	-0.0929669	0.2517431	0.0401926	0.2371826
$pct\_with\_coverage$	-0.2292798	0.2302489	-0.6516658	0.0049621	0.1497702
$income\_cat$	-0.3030288	0.0110839	-0.6344122	0.0103377	0.0266055



#### The discriptive statistics:

```
state_summary = function(x){
mean = mean(x)
max = max(x)
min = min(x)
median = median(x)
var = var(x)
sd = sd(x)
sample_size=length(x)-sum(is.na(x))
tibble(mean, max, min, median, var, sd, sample size)
}
df_target_death_rate <-state_summary(cancer_county$target_death_rate)</pre>
df incidence rate <-state summary(cancer county$incidence rate)
df_poverty_percent<-state_summary(cancer_county$poverty_percent)</pre>
df_median_age<-state_summary(cancer_county$median_age)</pre>
df_median_agemale<-state_summary(cancer_county$median_age_male)</pre>
df_median_agefemale<-state_summary(cancer_county$median_age_female)</pre>
df_avg_household_size<-state_summary(cancer_county$avg_household_size)</pre>
df_pct_unemployed16_over<-state_summary(cancer_county$pct_unemployed16_over)</pre>
df_pct_white<-state_summary(cancer_county$pct_white)</pre>
df_pct_black<-state_summary(cancer_county$pct_black)</pre>
df_pct_asian<-state_summary(cancer_county$pct_asian)</pre>
df_pct_other_race<-state_summary(cancer_county$pct_other_race)</pre>
df_pct_married_households<-state_summary(cancer_county$pct_married_households)</pre>
df_pct_upto_hs18_24<-state_summary(cancer_county$pct_upto_hs18_24)
df_pct_with_coverage<-state_summary(cancer_county$pct_with_coverage)</pre>
state_des <- bind_rows(df_target_death_rate,
                        df_incidence_rate,
                        df poverty percent,
                        df_median_age,
                        df_median_agemale,
                        df_median_agefemale,
                        df_avg_household_size,
                        df_pct_unemployed16_over,
                        df_pct_white,
                        df_pct_black,
                        df_pct_asian,
                        df_pct_other_race,
                        df_pct_married_households,
                        df_pct_upto_hs18_24,
                        df_pct_with_coverage)
variable<- c("target_death_rate", "incidence_rate", "poverty_percent", "median_age", "median_agemale", "</pre>
state_wholedes <- cbind(variable, state_des)</pre>
knitr::kable(state_wholedes)
```

variable	mean	max	min	median	var	$\operatorname{sd}$	$sample\_size$
target_death_rate	178.664063	362.80000	59.70000	178.1000000	770.1463805	27.7515113	3047
incidence_rate	448.268586	1206.90000	201.30000	453.5494221	2976.8735549	54.5607327	3047
poverty_percent	16.878175	47.40000	3.20000	15.9000000	41.0763948	6.4090869	3047
median_age	45.272333	624.00000	22.30000	41.0000000	2052.4959218	45.3044802	3047

variable	mean	max	$\min$	median	var	$\operatorname{sd}$	$sample\_size$
median_agemale	39.570725	64.70000	22.40000	39.6000000	27.3112504	5.2260167	3047
$median\_agefemale$	42.145323	65.70000	22.30000	42.4000000	28.0142518	5.2928491	3047
avg_household_size	2.479662	3.97000	0.02210	2.5000000	0.1841906	0.4291744	3047
$pct\_unemployed16\_over$	7.852412	29.40000	0.40000	7.6000000	11.9188640	3.4523708	3047
pct_white	83.645286	100.00000	10.19916	90.0597742	268.3052265	16.3800252	3047
pct_black	9.107978	85.94780	0.00000	2.2475763	211.2527926	14.5345379	3047
$pct\_asian$	1.253965	42.61942	0.00000	0.5498117	6.8135428	2.6102764	3047
$pct\_other\_race$	1.983523	41.93025	0.00000	0.8261852	12.3742846	3.5177101	3047
pct_married_households	51.243872	78.07540	22.99249	51.6699411	43.2018812	6.5728138	3047
pct_upto_hs18_24	53.226518	100.00000	4.80000	53.9000000	160.1814371	12.6562805	3047
$pct\_with\_coverage$	83.595011	95.70000	54.60000	84.0000000	35.3664623	5.9469709	3047

### Model building:

#### Stepwise:

```
# building full model
full_model <- lm(target_death_rate ~., data = cancer_county)</pre>
summary(full_model)
##
## Call:
## lm(formula = target_death_rate ~ ., data = cancer_county)
##
## Residuals:
      Min
               1Q
                   Median
                               30
                                      Max
## -129.883 -11.469
                    0.163
                            12.142 126.523
##
## Coefficients:
##
                       Estimate Std. Error t value Pr(>|t|)
                      72.058821 12.583888
                                         5.726 1.13e-08 ***
## (Intercept)
## incidence_rate
                       0.219657
                                 0.007547 29.104 < 2e-16 ***
## poverty_percent
                       1.036531
                                 0.120008
                                         8.637 < 2e-16 ***
## median_age
                      -0.004080 0.008394 -0.486 0.626969
                               0.212259 -1.139 0.254726
## median_age_male
                      -0.241798
## median_age_female
                       0.046110 0.209093
                                          0.221 0.825476
## avg_household_size
                      -0.117704 1.007617 -0.117 0.907015
## pct_unemployed16_over 0.781391
                                 0.153410
                                          5.093 3.73e-07 ***
## pct_white
                       0.067342
                               0.058298
                                          1.155 0.248127
## pct_black
                      ## pct_asian
                      ## pct_other_race
                      ## pct married households -0.220555
                                 0.088361 -2.496 0.012611 *
                       ## pct_upto_hs18_24
## pct_with_coverage
                       -0.194259
                                 0.101672 -1.911 0.056145 .
## income_cat
                      -4.104213
                                 1.507502 -2.723 0.006516 **
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## Residual standard error: 20.77 on 3031 degrees of freedom
## Multiple R-squared: 0.4427, Adjusted R-squared: 0.4399
## F-statistic: 160.5 on 15 and 3031 DF, p-value: < 2.2e-16
```

```
# Using the stepwise
stepwise_model = stepAIC(full_model, direction = "both", trace = FALSE)
summary(stepwise model)
##
## Call:
## lm(formula = target_death_rate ~ incidence_rate + poverty_percent +
##
      median_age_male + pct_unemployed16_over + pct_white + pct_asian +
##
      pct_other_race + pct_married_households + pct_upto_hs18_24 +
##
      pct_with_coverage + income_cat, data = cancer_county)
##
## Residuals:
      Min
                1Q
                    Median
## -129.978 -11.453
                     0.127
                            12.095
                                  126.386
##
## Coefficients:
##
                       Estimate Std. Error t value Pr(>|t|)
## (Intercept)
                      70.812109 11.698781
                                           6.053 1.60e-09 ***
## incidence_rate
                       0.219430
                                0.007509 29.223 < 2e-16 ***
## poverty_percent
                       1.038613
                               0.119140
                                          8.718 < 2e-16 ***
## median age male
                       ## pct unemployed16 over
                       0.774783 0.152081
                                           5.095 3.71e-07 ***
## pct_white
                       0.080440 0.034847
                                           2.308 0.021043 *
## pct asian
                       ## pct_other_race
## pct_upto_hs18_24
## pct_with_coverage
                      -0.194337
                                 0.099299 -1.957 0.050430 .
                       -4.069227
                                 1.500008 -2.713 0.006709 **
## income_cat
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## Residual standard error: 20.76 on 3035 degrees of freedom
## Multiple R-squared: 0.4426, Adjusted R-squared: 0.4406
## F-statistic: 219.1 on 11 and 3035 DF, p-value: < 2.2e-16
vif(stepwise_model)
##
         incidence_rate
                             poverty_percent
                                                 median_age_male
##
               1.186642
                                   4.122196
                                                        1.446080
##
   pct_unemployed16_over
                                  pct_white
                                                       pct_asian
##
               1.948976
                                   2.303407
                                                        1.351383
##
                                                pct_upto_hs18_24
         pct_other_race pct_married_households
                                                        1.614089
##
               1.243892
                                   2.261059
##
       pct_with_coverage
                                 income cat
##
               2.465515
                                   1.729209
# Cp and AIC and Adjusted R2
model_dig <- glance(stepwise_model) %>%
 as.data.frame() %>%
 dplyr::select(adj.r.squared, sigma, p.value, AIC, BIC) %>%
 rename(RES = sigma) %>%
 mutate(cp = ols_mallows_cp(stepwise_model, full_model))
```

```
model_dig
                      RES p.value
    adj.r.squared
                                       AIC
        0.4405848 20.75648
                                0 27143.23 27221.51 8.35992
forword elimination:
step_null <- lm(target_death_rate ~1, data = cancer_county)</pre>
for_model <- step(step_null, scope = list(lower = step_null, upper = full_model), direction = "forward"</pre>
## Start: AIC=20253.13
## target_death_rate ~ 1
##
                          Df Sum of Sq
##
                                           RSS
                                                 ATC:
## + incidence_rate
                           1
                                473839 1872027 19568
## + poverty_percent
                                432519 1913347 19634
                           1
## + pct unemployed16 over
                           1
                              335919 2009947 19784
## + income_cat
                              215413 2130453 19962
                           1
## + pct_married_households 1
                                201838 2144028 19981
## + pct_black
                           1
                              154971 2190895 20047
## + pct_upto_hs18_24
                           1 140012 2205854 20068
                           1 123320 2222546 20091
## + pct_with_coverage
## + pct_other_race
                           1 84591 2261275 20143
                               81447 2264419 20148
## + pct_asian
                           1
## + pct_white
                          1
                               73826 2272040 20158
## + avg_household_size
                                 3195 2342671 20251
                           1
## <none>
                                       2345866 20253
                                1128 2344738 20254
                          1
## + median_age_male
## + median_age_female
                           1
                                  341 2345525 20255
## + median_age
                           1
                                   45 2345821 20255
##
## Step: AIC=19567.63
## target_death_rate ~ incidence_rate
##
                          Df Sum of Sq
##
                                           RSS
                                                 ATC
                           1 424402 1447625 18786
## + poverty_percent
                           1 274299 1597728 19087
## + pct_with_coverage
## + pct_unemployed16_over
                          1
                              263513 1608514 19107
## + income cat
                           1 222580 1649447 19184
## + pct upto hs18 24
                          1 193672 1678355 19237
                              121502 1750525 19365
## + pct_married_households 1
## + pct_black
                           1
                              100866 1771161 19401
## + pct_asian
                           1
                              78292 1793736 19440
                              68513 1803514 19456
## + pct_white
                           1
                               22640 1849387 19533
## + pct_other_race
                          1
## <none>
                                       1872027 19568
## + avg_household_size 1
                                 633 1871394 19569
## + median_age_female
                                  611 1871416 19569
                           1
                                   550 1871477 19569
## + median_age_male
                           1
## + median_age
                           1
                                    33 1871994 19570
##
## Step: AIC=18786.25
## target_death_rate ~ incidence_rate + poverty_percent
```

##

```
##
                           Df Sum of Sq
                                            RSS
                                                  AIC
                                  80716 1366909 18613
## + pct_upto_hs18_24
                            1
## + pct_other_race
                                  33609 1414016 18717
                                  32261 1415365 18720
## + pct_asian
                            1
                                15019 1432607 18756
## + median_age_female
                            1
                               14077 1433549 18758
## + median_age_male
                            1
## + pct_with_coverage
                              13501 1434124 18760
                            1
                               12716 1434910 18761
## + pct_unemployed16_over
                            1
## + pct_white
                            1
                                   6634 1440992 18774
                                   5706 1441919 18776
## + income_cat
                            1
## + pct_married_households 1
                                   3874 1443752 18780
                                        1447625 18786
## <none>
## + avg_household_size
                                    594 1447031 18787
                            1
## + pct_black
                                    400 1447226 18787
                            1
                                    181 1447445 18788
## + median_age
                            1
##
## Step: AIC=18613.44
## target_death_rate ~ incidence_rate + poverty_percent + pct_upto_hs18_24
##
##
                           Df Sum of Sq
                                            RSS
                                                  AIC
## + pct_other_race
                            1
                                  34240 1332669 18538
                                  12236 1354674 18588
## + pct_asian
                            1
## + pct_unemployed16_over
                                   8454 1358456 18596
                            1
                                   3759 1363151 18607
## + pct_white
                            1
                                   3424 1363486 18608
## + income_cat
                            1
## + median_age_female
                           1
                                   1261 1365649 18613
## + avg_household_size
                                   1128 1365782 18613
                            1
                                   1069 1365840 18613
## + median_age_male
                            1
## <none>
                                        1366909 18613
## + pct_married_households 1
                                   613 1366296 18614
## + pct_with_coverage
                            1
                                    27 1366882 18615
## + pct_black
                            1
                                      2 1366908 18615
## + median_age
                                      1 1366908 18615
##
## Step: AIC=18538.14
## target_death_rate ~ incidence_rate + poverty_percent + pct_upto_hs18_24 +
##
      pct_other_race
##
##
                           Df Sum of Sq
                                            RSS
                                                  AIC
                                 9267.5 1323402 18519
## + pct_unemployed16_over
                                 5052.3 1327617 18529
## + pct_asian
                            1
## + pct_with_coverage
                                 2375.3 1330294 18535
                            1
                                 2145.7 1330524 18535
## + income cat
                            1
                                 1066.1 1331603 18538
## + pct_married_households 1
                                        1332669 18538
## <none>
                                458.9 1332211 18539
## + median_age_male
                            1
## + median_age_female
                            1
                                  398.0 1332271 18539
                                  224.1 1332445 18540
## + pct_white
                            1
## + median_age
                            1
                                   35.2 1332634 18540
## + avg_household_size
                            1
                                   24.8 1332645 18540
                            1
                                   16.3 1332653 18540
## + pct_black
##
## Step: AIC=18518.88
## target_death_rate ~ incidence_rate + poverty_percent + pct_upto_hs18_24 +
```

```
##
       pct_other_race + pct_unemployed16_over
##
                            Df Sum of Sq
##
                                              RSS
                                                    AIC
                                  7150.1 1316252 18504
## + pct_asian
## + income cat
                                  2011.0 1321391 18516
                                  1797.2 1321605 18517
## + pct_white
                             1
## + pct_with_coverage
                             1
                                  1689.9 1321712 18517
## <none>
                                          1323402 18519
## + pct_black
                                   571.9 1322830 18520
                             1
## + pct_married_households
                             1
                                   414.8 1322987 18520
## + median_age_male
                             1
                                   379.5 1323022 18520
                                   264.7 1323137 18520
## + median_age_female
                             1
                             1
                                   105.8 1323296 18521
## + median_age
                                    47.3 1323355 18521
## + avg_household_size
                             1
##
## Step: AIC=18504.37
  target_death_rate ~ incidence_rate + poverty_percent + pct_upto_hs18_24 +
       pct_other_race + pct_unemployed16_over + pct_asian
##
##
                            Df Sum of Sq
                                              RSS
                                                    AIC
## + income_cat
                             1
                                 2103.03 1314149 18502
                                 1477.42 1314774 18503
## + pct_with_coverage
                                 1159.91 1315092 18504
## + median_age_male
                             1
                                 1136.29 1315116 18504
## + pct married households
                             1
## + median_age_female
                             1
                                  967.25 1315285 18504
## <none>
                                          1316252 18504
## + pct_black
                             1
                                  279.85 1315972 18506
## + pct_white
                             1
                                  191.80 1316060 18506
                             1
                                  170.35 1316081 18506
## + median_age
## + avg_household_size
                             1
                                    3.69 1316248 18506
##
## Step: AIC=18501.5
  target_death_rate ~ incidence_rate + poverty_percent + pct_upto_hs18_24 +
       pct_other_race + pct_unemployed16_over + pct_asian + income_cat
##
##
                            Df Sum of Sq
##
                                              RSS
                                                    ATC
## + median age male
                                 1598.68 1312550 18500
## + pct_with_coverage
                             1
                                 1583.80 1312565 18500
## + median_age_female
                                 1336.46 1312812 18500
                             1
                                  1292.40 1312856 18500
## + pct_married_households 1
                                          1314149 18502
## <none>
                                  402.78 1313746 18503
## + pct_black
                             1
## + pct_white
                             1
                                  211.25 1313938 18503
                             1
                                  177.61 1313971 18503
## + median_age
                                    7.28 1314142 18504
## + avg_household_size
                             1
##
## Step: AIC=18499.79
  target_death_rate ~ incidence_rate + poverty_percent + pct_upto_hs18_24 +
##
       pct_other_race + pct_unemployed16_over + pct_asian + income_cat +
##
       median_age_male
##
##
                            Df Sum of Sq
                                              RSS
                                                    AIC
## + pct_married_households 1
                                 1342.99 1311207 18499
## + pct with coverage
                                 1284.92 1311265 18499
```

```
1312550 18500
## <none>
## + pct_black
                                  708.06 1311842 18500
                             1
## + pct white
                                  660.99 1311889 18500
                                  111.96 1312438 18502
## + avg_household_size
                             1
## + median age
                             1
                                   80.16 1312470 18502
                                    0.05 1312550 18502
## + median age female
                             1
## Step: AIC=18498.67
## target_death_rate ~ incidence_rate + poverty_percent + pct_upto_hs18_24 +
       pct_other_race + pct_unemployed16_over + pct_asian + income_cat +
##
##
       median_age_male + pct_married_households
##
##
                        Df Sum of Sq
                                         RSS
                             1983.12 1309224 18496
## + pct_white
                             1807.47 1309400 18496
## + pct_black
                         1
## + pct_with_coverage
                             1337.46 1309870 18498
                                     1311207 18499
## <none>
## + median age
                               91.07 1311116 18500
                               11.49 1311196 18501
## + median_age_female
                         1
## + avg household size 1
                                9.17 1311198 18501
##
## Step: AIC=18496.06
## target_death_rate ~ incidence_rate + poverty_percent + pct_upto_hs18_24 +
       pct other race + pct unemployed16 over + pct asian + income cat +
##
       median_age_male + pct_married_households + pct_white
##
##
                        Df Sum of Sq
                                         RSS
                                               AIC
                           1650.15 1307574 18494
## + pct_with_coverage
                         1
                                     1309224 18496
## <none>
                              143.74 1309080 18498
## + pct_black
                         1
## + median_age
                         1
                               85.86 1309138 18498
## + median_age_female
                         1
                                2.57 1309221 18498
## + avg_household_size 1
                                0.84 1309223 18498
##
## Step: AIC=18494.22
## target_death_rate ~ incidence_rate + poverty_percent + pct_upto_hs18_24 +
##
       pct other race + pct unemployed16 over + pct asian + income cat +
##
       median_age_male + pct_married_households + pct_white + pct_with_coverage
##
##
                                         RSS
                                               ATC:
                        Df Sum of Sq
                                     1307574 18494
## <none>
## + median age
                             101.118 1307473 18496
                              24.646 1307549 18496
## + pct black
## + median_age_female
                         1
                              15.103 1307559 18496
                              6.381 1307567 18496
## + avg_household_size 1
summary(for_model)
##
## Call:
## lm(formula = target_death_rate ~ incidence_rate + poverty_percent +
       pct_upto_hs18_24 + pct_other_race + pct_unemployed16_over +
##
       pct_asian + income_cat + median_age_male + pct_married_households +
##
##
       pct_white + pct_with_coverage, data = cancer_county)
##
```

```
## Residuals:
##
       Min
                    Median
                10
                                 30
                                         Max
## -129.978 -11.453
                    0.127
                              12.095 126.386
##
## Coefficients:
##
                         Estimate Std. Error t value Pr(>|t|)
## (Intercept)
                        70.812109 11.698781
                                             6.053 1.60e-09 ***
                                  0.007509 29.223 < 2e-16 ***
## incidence rate
                         0.219430
## poverty_percent
                         1.038613
                                   0.119140
                                             8.718 < 2e-16 ***
## pct_upto_hs18_24
                         ## pct_other_race
                        -0.933301
                                   0.119239 -7.827 6.84e-15 ***
                        0.774783 0.152081
                                             5.095 3.71e-07 ***
## pct_unemployed16_over
## pct_asian
                        ## income_cat
                        -4.069227 1.500008 -2.713 0.006709 **
                        ## median_age_male
## pct_married_households -0.222728
                                   0.086039 -2.589 0.009680 **
                                              2.308 0.021043 *
## pct_white
                         0.080440
                                   0.034847
## pct_with_coverage
                        -0.194337
                                   0.099299 -1.957 0.050430 .
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 20.76 on 3035 degrees of freedom
## Multiple R-squared: 0.4426, Adjusted R-squared: 0.4406
## F-statistic: 219.1 on 11 and 3035 DF, p-value: < 2.2e-16
vif(for model)
##
          incidence rate
                              poverty_percent
                                                   pct_upto_hs18_24
##
                1.186642
                                     4.122196
                                                           1.614089
          pct_other_race pct_unemployed16_over
##
                                                          pct asian
##
                1.243892
                                     1.948976
                                                           1.351383
##
              income_cat
                              median_age_male pct_married_households
##
               1.729209
                                     1.446080
                                                           2.261059
##
               pct white
                             pct with coverage
                2.303407
                                     2.465515
##
backward elimination:
back_model <- step(full_model, direction = "backward", trace = FALSE)</pre>
summary(back_model) # same as stepwise
##
## Call:
## lm(formula = target_death_rate ~ incidence_rate + poverty_percent +
      median_age_male + pct_unemployed16_over + pct_white + pct_asian +
##
##
      pct other race + pct married households + pct upto hs18 24 +
##
      pct_with_coverage + income_cat, data = cancer_county)
##
## Residuals:
                     Median
       Min
                1Q
                                 3Q
## -129.978 -11.453
                      0.127
                              12.095 126.386
##
## Coefficients:
##
                         Estimate Std. Error t value Pr(>|t|)
                        70.812109 11.698781 6.053 1.60e-09 ***
## (Intercept)
```

```
## incidence rate
                    ## poverty_percent
                    ## median age male
                   ## pct_unemployed16_over 0.774783 0.152081 5.095 3.71e-07 ***
## pct white
                    0.080440 0.034847
                                    2.308 0.021043 *
## pct asian
                   ## pct other race
                   -0.933301 0.119239 -7.827 6.84e-15 ***
## pct_upto_hs18_24
                   ## pct_with_coverage
                   -0.194337
                            0.099299 -1.957 0.050430 .
## income_cat
                   -4.069227 1.500008 -2.713 0.006709 **
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 20.76 on 3035 degrees of freedom
## Multiple R-squared: 0.4426, Adjusted R-squared: 0.4406
## F-statistic: 219.1 on 11 and 3035 DF, p-value: < 2.2e-16
vif(back_model)
##
        incidence_rate
                         poverty_percent
                                          median_age_male
##
             1.186642
                              4.122196
                                                1.446080
##
  pct_unemployed16_over
                             pct_white
                                               pct_asian
##
             1.948976
                              2.303407
                                                1.351383
##
        pct_other_race pct_married_households
                                         pct_upto_hs18_24
##
             1.243892
                                                1.614089
                              2.261059
##
      pct_with_coverage
                            income_cat
##
             2.465515
                              1.729209
```

## Cross validation and Criterion method summery

```
cross_df <- crossv_mc(cancer_county, n = 100, test = 0.2)</pre>
cross_result <- cross_df %>%
  mutate(train = map(train, as_tibble),
         test = map(test, as tibble),
         step mod = map(train, ~lm(target death rate ~ incidence rate + poverty percent +
   median_age_male + pct_unemployed16_over + pct_white + pct_asian +
   pct_other_race + pct_married_households + pct_upto_hs18_24 +
   pct_with_coverage + income_cat, data = .x)),
   rmse_train = map2_db1(step_mod, train, ~rmse(model = .x, data = .y)),
    rmse_test = map2_dbl(step_mod, test, ~rmse(model = .x, data = .y)))
mse_result = cross_result %>%
  dplyr::select(rmse train, rmse test) %>%
  summarize(mse train = (mean(rmse train))^2,
            mse test = (mean(rmse test))^2) %>%
  knitr::kable(digit = 3)
mse_result
```

```
        mse_train
        mse_test

        429.39
        430.69
```

#### **Bootstrap**

```
back_model = lm(target_death_rate ~ incidence_rate + poverty_percent +
    median_age_male + pct_unemployed16_over + pct_white + pct_asian +
    pct_other_race + pct_married_households + pct_upto_hs18_24 +
    pct_with_coverage + income_cat, data = cancer_county)

cancer_county %>%
    modelr::bootstrap(n = 1000) %>%
    mutate(models = map(strap, ~lm(target_death_rate ~ incidence_rate + poverty_percent +
        median_age_male + pct_unemployed16_over + pct_white + pct_asian +
        pct_other_race + pct_married_households + pct_upto_hs18_24 +
        pct_with_coverage + income_cat, data = .x)),
            results = map(models, broom::tidy)) %>%
        dplyr::select(-strap, -models) %>%
        unnest() %>%
        group_by(term) %>%
        summarize(boot_se = sd(estimate))
```

```
## # A tibble: 12 x 2
##
      term
                             boot se
##
      <chr>
                               <dbl>
## 1 (Intercept)
                             14.9
## 2 incidence_rate
                              0.0127
## 3 income_cat
                              1.72
## 4 median_age_male
                              0.0937
## 5 pct_asian
                              0.261
## 6 pct_married_households 0.102
## 7 pct_other_race
                              0.155
```

```
## 8 pct_unemployed16_over 0.195
## 9 pct_upto_hs18_24 0.0414
## 10 pct_white 0.0418
## 11 pct_with_coverage 0.127
## 12 poverty_percent 0.146
```

## **Outliers**

```
par(mfrow = c(2,2))
plot(stepwise_model) # we observe the 282, 1059 are outliers
                                                            Standardized residuals
                                                                                    Normal Q-Q
                    Residuals vs Fitted
      150
                                                                                                         274220
             02714
Residuals
                                                                   4
      0
                                                                   0
      20
                                                                   တု
             100
                    150
                           200
                                  250
                                         300
                                                350
                                                                                 -2
                                                                                                       2
                                                                                                            3
                                                                                 Theoretical Quantiles
                          Fitted values
Standardized residuals
                                                            Standardized residuals
                      Scale-Location
                                                                              Residuals vs Leverage
                                                                                                                  0.5
                        01221
             02714
                                                                                                      27140
                                                                          8
                                                                   2
      1.5
                                                                                 ଦିନ୍ୟୁ 's distance
                                                                   5
      0.0
                                                                                                                  0.5
             100
                    150
                           200
                                  250
                                         300
                                                350
                                                                       0.00
                                                                               0.02
                                                                                       0.04
                                                                                              0.06
                                                                                                      0.08
                                                                                                              0.10
```

```
# Using the studentized residuals
stu_res_step <- rstandard(stepwise_model)
outliers_y_step = stu_res_step[abs(stu_res_step) > 2.5]
outliers_y_step
```

Leverage

```
##
                               120
                                          122
                                                    124
                                                                          189
         116
                    119
                                                               166
    3.832977 -2.987984 -2.938723
                                   3.451322 -3.218087
                                                          3.004467 -2.722478
##
                    250
                                          256
##
         209
                               254
                                                     264
                                                               282
                                                                          522
##
    2.634644
               2.588483
                         3.557345
                                   -2.852694
                                              -3.008080
                                                         -6.396845
                                                                     2.942781
                                                               783
##
         524
                    621
                               627
                                          666
                                                    775
                                                                          803
    2.568705 -2.758364
                          3.045997
                                    2.920921
                                                        -2.537021 -2.663472
##
                                               3.334436
##
         812
                    845
                               912
                                          921
                                                    979
                                                              1048
                                                                         1058
   -3.536931 -3.028088 -3.843379 -3.048353
                                               2.507593 -2.742014 -2.740598
##
##
        1059
                   1066
                              1076
                                         1094
                                                   1217
                                                              1221
                                                                         1261
##
   -4.608218 -2.851923
                         2.589435 -3.878191
                                               2.599136
                                                          6.099415
                                                                    3.086750
##
        1310
                   1331
                              1345
                                         1366
                                                   1429
                                                              1497
                                                                         1797
    2.535483 -2.754403 -2.677687 5.386441 -3.247185
                                                          4.014689 -2.821788
##
```

Fitted values

```
-2.751254 -4.227918 3.000271 -2.799419 2.516370
                                                      2.505926 -3.205862
##
        2174
                            2318
                                                           2549
##
                  2176
                                      2323
                                                 2444
                                                                     2563
             2.732626 -3.324763 -2.721648 -3.437022
                                                      2.598223
                                                                 2.685328
##
   2.961474
##
        2590
                  2600
                            2626
                                      2637
                                                 2642
                                                           2646
                                                                     2659
                                 3.444507 -2.786091 -4.202767 -3.695226
##
   2.708745
             3.313439 -3.205136
                  2674
                            2696
                                      2714
                                                 2726
                                                           2727
## -2.505761 -3.095519 -2.594155 5.675093 2.838797 3.252953 -2.983391
stu res for = rstandard(for model)
outliers_y_for = stu_res_for[abs(stu_res_for) > 2.5]
outliers_y_for
                                                            166
                                                                      189
##
         116
                   119
                             120
                                       122
                                                  124
##
    3.832977 -2.987984 -2.938723
                                 3.451322 -3.218087
                                                      3.004467 -2.722478
##
         209
                   250
                                       256
                                                  264
                                                            282
                                                                      522
                             254
##
   2.634644
             2.588483
                        3.557345 -2.852694 -3.008080 -6.396845
                                                                 2.942781
##
         524
                   621
                             627
                                       666
                                                 775
                                                            783
                                                                      803
    2.568705 -2.758364
                        3.045997
                                  2.920921
##
                                            3.334436
                                                     -2.537021 -2.663472
##
                   845
                             912
                                                  979
                                                           1048
                                                                     1058
         812
                                       921
   -3.536931 -3.028088 -3.843379 -3.048353
                                            2.507593 -2.742014 -2.740598
##
        1059
                  1066
                            1076
                                      1094
                                                 1217
                                                           1221
                                                                     1261
##
   -4.608218 -2.851923
                        2.589435 -3.878191
                                            2.599136
                                                      6.099415
                                                                3.086750
##
                                      1366
        1310
                  1331
                            1345
                                                 1429
                                                           1497
                                                                     1797
##
   2.535483 -2.754403 -2.677687
                                 5.386441 -3.247185
                                                      4.014689 -2.821788
##
        1868
                  1942
                            1958
                                      1965
                                                 2016
                                                           2036
                                                                     2066
  -2.751254 -4.227918
                        3.000271 -2.799419
                                            2.516370
                                                      2.505926 -3.205862
##
##
        2174
                  2176
                            2318
                                      2323
                                                 2444
                                                           2549
                                                                     2563
##
   2.961474
             2.732626 -3.324763 -2.721648 -3.437022
                                                      2.598223
                                                                2.685328
##
        2590
                  2600
                            2626
                                      2637
                                                 2642
                                                           2646
                                 3.444507 -2.786091 -4.202767 -3.695226
   2.708745 3.313439 -3.205136
##
##
        2669
                  2674
                            2696
                                      2714
                                                 2726
                                                           2727
                                                                     2809
## -2.505761 -3.095519 -2.594155 5.675093 2.838797 3.252953 -2.983391
# various measure of influence
influence.measures(stepwise_model) #we observe the 282, 1059 are potential outliers
## Influence measures of
     lm(formula = target_death_rate ~ incidence_rate + poverty_percent +
                                                                               median_age_male + pct_une
##
##
           dfb.1_ dfb.incd_ dfb.pvr_ dfb.md__ dfb.p_16 dfb.pct_w dfb.pct_s
## 1
         3.05e-03 -5.84e-03 7.54e-03 7.01e-03 -6.52e-03 -1.19e-03 -1.18e-02
        -7.84e-04 1.19e-03 -4.50e-04 1.30e-03 -3.41e-04 -1.64e-03 1.83e-05
        -4.64e-03 -3.24e-02 2.74e-03 8.82e-03 4.47e-03 7.12e-04 -2.97e-03
## 3
        -4.97e-03 -7.37e-03 -3.14e-03 4.77e-04 2.06e-02 1.17e-02 3.60e-03
## 4
## 5
        -2.76e-03 1.12e-02 1.09e-03 -7.74e-03 2.81e-03 8.95e-04 -2.89e-04
## 6
        1.68e-03 -2.05e-02 1.94e-02 -1.07e-02 -3.38e-02 -1.03e-02 -5.65e-03
         1.53e-02 -8.54e-03 -1.79e-02 -1.34e-02 6.00e-03 4.26e-03 -1.01e-03
## 7
## 8
        -8.42e-04 -6.36e-03 2.61e-03 2.28e-02 2.71e-03 3.93e-03 8.40e-03
## 9
        1.16e-02 -8.07e-04 -1.02e-02 -8.34e-03 -1.62e-03 -1.61e-03 -3.66e-03
## 10
         1.88e-04 -6.24e-03 4.71e-03 5.08e-03 -3.97e-03 -1.28e-03 -9.31e-03
         4.98e-04 1.75e-02 4.34e-03 -1.02e-01 8.62e-03 7.56e-03 -8.69e-03
## 11
## 12
         1.07e-02 -1.32e-02 -2.16e-03 -2.45e-03 -2.37e-03 -3.12e-03 -2.58e-03
```

##

## 13

## 14

1868

1942

1958

1965

2016

2036

2066

1.93e-03 -1.98e-02 -1.39e-02 6.07e-03 1.51e-02 8.71e-03 2.88e-03 -6.76e-04 -5.46e-03 5.26e-03 2.50e-03 -2.27e-03 -2.81e-03 -1.90e-02

```
-4.10e-04 7.70e-04 6.41e-05 1.18e-03 -8.26e-04 -1.35e-03 -3.84e-04
        4.88e-03 1.82e-03 -5.22e-03 -5.42e-03 -1.82e-03 6.29e-04 -1.25e-03
## 16
## 17
        -5.27e-06 -4.97e-03 5.54e-03 3.69e-03 -5.35e-03 -3.53e-03 -1.19e-02
        1.63e-02 -4.10e-03 8.25e-03 -5.21e-02 -3.36e-02 -1.13e-03 -8.67e-03
## 18
## 19
       -1.71e-03 1.49e-05 2.39e-04 2.37e-03 1.02e-03 -2.50e-03 1.10e-03
       -4.46e-03 -8.30e-03 9.86e-04 3.09e-03 -4.20e-03 -8.22e-03 -8.21e-03
## 20
        2.90e-02 4.21e-02 -7.43e-02 4.25e-02 6.70e-03 -4.50e-02 -5.13e-02
## 21
        8.19e-04 3.89e-04 -9.75e-04 3.81e-03 -5.28e-04 -2.66e-03 8.80e-04
## 22
## 23
       -5.01e-03 1.58e-04 1.02e-02 2.97e-03 1.41e-03 3.31e-03 1.44e-03
## 24
       -2.15e-03 -3.43e-03 -1.93e-02 -1.93e-02 2.62e-02 1.07e-02 -3.93e-03
## 25
       -6.09e-02 2.07e-02 5.65e-02 -2.18e-03 2.81e-03 2.98e-02 1.35e-02
       -1.04e-03 -2.20e-03 -1.42e-03 -1.12e-03 3.65e-03 3.05e-03 8.99e-04
## 26
## 27
        1.68e-04 1.86e-03 2.91e-04 4.05e-03 -9.61e-04 3.43e-03 -7.60e-04
## 28
        8.65e-04 2.48e-04 -5.50e-04 -6.44e-04 -6.03e-04 1.21e-03 1.08e-04
## 29
        1.47e-02 7.02e-03 -4.25e-02 3.57e-02 9.75e-02 4.07e-02 1.99e-03
## 30
        3.65e-02 -5.35e-02 -1.34e-02 -2.44e-03 -1.21e-02 -2.02e-02 -1.48e-02
        3.02e-03 -1.43e-01 \ 1.17e-02 -3.64e-02 -9.66e-04 \ 3.72e-02 \ 1.73e-02
## 31
## 32
       -1.44e-02 5.95e-04 1.94e-02 1.18e-03 1.66e-03 1.91e-02 7.50e-03
       -7.46e-03 7.36e-03 2.25e-02 3.60e-03 -9.01e-03 -1.59e-03 -7.01e-04
## 33
## 34
        2.61e-02 5.33e-02 -3.29e-02 -2.14e-02 4.80e-04 -5.11e-03 -2.66e-04
## 35
        1.81e-03 -1.29e-03 -2.46e-03 -1.52e-03 1.31e-03 -1.37e-03 -7.50e-04
        5.73e-03 -7.94e-04 -2.99e-03 -8.62e-04 -3.51e-03 2.35e-02 4.31e-03
## 36
        6.97e-04 8.83e-04 -1.06e-03 8.57e-04 3.72e-04 7.50e-04 -4.79e-04
## 37
        8.28e-03 3.01e-02 2.55e-03 5.04e-03 -7.06e-03 -1.53e-02 -6.47e-03
## 38
## 39
        3.74e-03 1.18e-02 -9.56e-03 -5.31e-03 2.62e-03 1.25e-02 -2.28e-04
## 40
       -1.02e-02 2.32e-03 8.55e-03 -1.51e-04 -1.22e-03 2.70e-03 1.84e-05
        1.05e-02 -1.05e-02 -1.82e-02 -2.05e-04 1.88e-02 -2.12e-03 -5.85e-03
## 41
## 42
        3.91e-04 7.50e-03 -1.10e-03 -3.91e-04 -4.19e-03 8.12e-03 1.51e-03
       -6.92e-03 1.62e-02 8.79e-03 2.80e-03 -5.56e-03 8.13e-03 3.38e-03
## 43
## 44
       -1.34e-02 1.17e-02 5.41e-03 -5.58e-03 1.14e-03 1.62e-02 7.65e-03
       -2.78e-02 3.91e-02 2.01e-02 2.54e-03 2.43e-02 3.25e-02 1.22e-02
## 45
## 46
       -1.73e-02 -1.68e-03 1.80e-02 -4.31e-03 6.09e-04 1.98e-02 1.13e-02
## 47
        4.64e-04 -1.87e-03 -1.56e-03 -1.00e-04 2.03e-03 -7.65e-04 -2.68e-05
## 48
       -4.13e-03 -5.53e-06 2.82e-03 1.42e-03 4.85e-04 1.70e-03 1.42e-04
## 49
       -2.14e-02 -2.86e-03
                           1.53e-02 -1.35e-03 9.95e-03
                                                        1.60e-02 4.16e-03
       -6.45e-03 1.36e-02 2.20e-02 4.84e-03 -2.34e-02 6.53e-03 4.47e-03
## 50
## 51
        1.17e-02 -1.52e-03 -1.19e-02 -1.91e-03 5.64e-03 1.66e-02 1.85e-04
## 52
       -3.66e-02 1.46e-02 1.95e-02 -9.53e-03 2.56e-02 3.40e-02 1.49e-02
       -5.00e-04 1.36e-02 -2.82e-02 3.39e-02 1.71e-02 -3.19e-02 -1.20e-02
## 53
       -9.07e-03 -2.89e-03 1.42e-02 1.11e-02 -2.43e-03 4.09e-03 1.41e-03
## 54
        3.27e-02 -2.01e-02 -5.81e-02 2.45e-03 5.65e-02 4.62e-02 2.78e-03
## 55
        -1.63e-02 1.11e-05 1.69e-02 2.41e-03 2.05e-03 7.67e-03 3.66e-03
## 56
## 57
       -1.47e-05 -8.09e-04 -9.07e-04 -6.90e-04 1.20e-03 -1.00e-03 6.94e-05
        1.66e-02 2.86e-02 -2.57e-02 -2.55e-02 2.27e-02 -2.08e-04 -6.33e-03
## 58
## 59
       -4.50e-02 -4.04e-03 2.96e-02 1.84e-03 1.30e-02 6.46e-03 -3.25e-03
        1.29e-03 -2.92e-03 -2.12e-03 1.84e-03 -2.01e-03 1.52e-03 6.25e-04
## 60
## 61
        9.12e-03 2.63e-03 -9.84e-03 2.32e-03 1.94e-03 -1.90e-03 -8.76e-04
## 62
        1.68e-03 -5.55e-03 1.09e-03 1.46e-03 4.12e-03 1.72e-03 2.12e-03
## 63
       -2.62e-03 3.52e-03 6.96e-03 1.75e-04 -6.82e-03 3.62e-03 2.74e-03
        5.89e-03 7.05e-03 -1.22e-02 -6.75e-04 4.58e-03 -6.26e-03 -2.72e-03
## 64
       -2.89e-03 1.20e-02 -2.84e-03 8.13e-03 1.35e-02 1.65e-02 2.86e-03
## 65
## 66
       -4.23e-03 -7.74e-04 1.38e-03 -1.54e-03 -4.26e-04 5.50e-03 2.46e-03
## 67
        1.82e-02 2.06e-02 -1.41e-02 -8.71e-03 -1.53e-03 -1.07e-02 -6.55e-03
       -7.95e-05 -6.59e-04 7.70e-05 -3.33e-05 5.86e-04 6.05e-04 1.63e-04
## 68
```

```
4.25e-02 -4.11e-02 -3.23e-02 -3.59e-02 3.85e-03 -2.41e-03 -1.16e-02
       -1.06e-03 2.02e-03 -4.19e-03 4.25e-03 1.09e-02 8.20e-03 1.02e-03
## 70
## 71
       -2.98e-03 6.64e-04 6.55e-03 1.87e-03 5.24e-05 3.61e-03 7.10e-04
       -2.09e-05 7.54e-04 -4.18e-04 1.68e-04 -1.02e-03 -2.20e-03 -2.82e-04
## 72
## 73
       -3.38e-02 3.34e-02 -3.23e-03 1.47e-02 6.04e-02 7.23e-02 2.91e-02
        2.08e-03 -1.54e-03 -1.26e-03 -4.13e-04 1.76e-04 -1.51e-03 -9.78e-04
## 74
       -3.29e-04 -9.22e-06 3.98e-04 2.87e-04 1.40e-05 1.51e-04 4.19e-05
## 75
        1.15e-03 -1.90e-03 -3.77e-04 3.58e-04 -1.83e-03 -5.30e-03 -5.26e-04
## 76
## 77
        -2.08e-02 -3.69e-03 5.32e-03 -1.10e-02 1.81e-02 4.31e-02 9.33e-03
## 78
       -2.82e-02 1.98e-03 1.49e-02 2.46e-02 1.14e-02 1.03e-03 4.62e-03
## 79
        3.65e-02 -1.51e-02 -3.26e-02 6.70e-03 1.16e-02 1.45e-02 -2.27e-02
        2.01e-04 6.95e-04 2.11e-05
                                     1.53e-04 5.97e-05 -3.85e-04 3.71e-05
## 80
## 81
       -1.64e-03 -2.66e-02 2.85e-03 4.12e-02 4.88e-03 -1.76e-02 -8.00e-03
       -6.34e-04 -3.97e-03 7.20e-03
## 82
                                    1.17e-02 5.12e-04 -6.06e-03 -3.71e-03
## 83
        2.93e-04 -1.36e-02 -2.62e-03 5.15e-03 -5.43e-03 -4.55e-05 -4.35e-03
## 84
        -2.18e-02 -2.58e-02
                            2.09e-02
                                     4.87e-02 2.23e-03 -7.18e-03 -1.59e-03
## 85
        1.99e-03 -1.22e-03 9.20e-04
                                     1.55e-03 1.07e-03 2.25e-03 8.57e-05
## 86
        1.96e-04 -7.25e-03 6.98e-03 8.14e-03 3.15e-03 -2.96e-03 1.01e-03
## 87
       -3.53e-02 -2.30e-02 1.04e-02 3.49e-02 2.91e-02 -2.44e-02 -1.43e-02
## 88
       -2.10e-05 1.76e-05 -1.16e-04 -5.75e-05
                                               3.01e-05 2.82e-05 -4.03e-05
        2.84e-03 -3.75e-04 -9.33e-04 -1.98e-03 7.04e-04 -2.42e-03 -7.24e-05
## 89
       -6.25e-04 2.38e-03 -3.68e-04 2.37e-03 1.32e-03 -1.85e-03 -2.70e-03
## 90
       -3.27e-03 -5.44e-03 -5.98e-03 -5.98e-03 2.47e-03 2.38e-03 -2.72e-03
## 91
        1.02e-02 1.48e-03 -1.85e-03 -1.58e-02 -1.68e-03 4.27e-03 1.63e-03
## 92
## 93
        4.88e-02 -8.34e-02 -3.09e-02 -1.06e-02 1.84e-02 3.90e-02 -1.10e-02
## 94
        2.31e-04 -5.16e-04 1.66e-07 -4.82e-04 8.70e-05 3.03e-04 -1.88e-05
       -1.88e-03 1.83e-03 3.76e-04 4.21e-03 4.32e-04 -3.74e-03 -1.80e-03
## 95
## 96
       -1.34e-03 -8.06e-02 1.05e-02 7.00e-02 2.46e-02 -1.47e-02 -1.30e-02
## 97
        1.95e-03 -2.87e-03 5.36e-03 1.65e-03 -5.75e-05 -1.13e-03 3.04e-03
## 98
       -3.25e-03 -2.16e-02 9.09e-03 -2.20e-02 -1.42e-02 8.28e-03 3.85e-03
        1.07e-03 -1.55e-03 9.21e-04 -3.19e-03 -1.25e-03 1.74e-03 -1.05e-03
## 99
## 100
        5.34e-05 7.40e-04 4.77e-04 3.29e-04 3.75e-04 -3.11e-05 3.55e-04
## 101
       -3.17e-04 5.60e-05 4.74e-04 9.75e-04 3.85e-04 1.00e-03 1.82e-03
        6.02e-03 -1.97e-02 1.38e-02 1.66e-02 -3.33e-02 -1.43e-02 -5.41e-04
## 102
## 103
        6.12e-04 -3.02e-02
                            2.20e-02 6.88e-02 -2.98e-02 -2.06e-02 -2.27e-02
## 104
        2.30e-02 -9.86e-02 -3.35e-03 -2.47e-02 -5.07e-03 -8.67e-03 -1.87e-02
## 105
        2.43e-02 4.98e-03 -2.83e-02 -5.37e-02 4.93e-02 3.79e-02 1.60e-02
## 106
        1.36e-03 4.51e-04 4.20e-03 -3.08e-03 -4.61e-04 -3.58e-03 -6.95e-04
        9.81e-04 -1.40e-02 5.07e-03 4.20e-03 -1.26e-02 -2.80e-03 -2.33e-03
## 107
        1.10e-03 -5.02e-04 -7.02e-04 -1.07e-05 -5.93e-03 -5.69e-03 -4.78e-03
## 108
       -9.71e-04 6.79e-03 -4.81e-03 1.21e-02 3.78e-03 5.78e-04 6.45e-03
## 109
        9.08e-03 -1.78e-02 -2.08e-03 -1.49e-02 1.48e-02 -1.66e-03 -8.27e-03
## 110
## 111
        9.60e-03 -1.47e-02 -1.99e-03 -6.59e-03 -1.44e-02 -2.16e-03 -9.43e-03
        3.01e-02 2.45e-03 -5.33e-02 -2.13e-02 5.24e-02 2.35e-02 9.24e-03
## 112
## 113
       -1.64e-03 -1.17e-03 2.63e-03 -3.12e-04 -2.02e-03 -1.86e-03 -6.29e-03
       -2.58e-03 -9.32e-03 2.40e-02 -3.90e-02 -2.04e-02 8.60e-03 1.06e-03
## 114
## 115
       -2.63e-02 -9.82e-03 2.75e-02 3.92e-02 2.50e-03 2.67e-04 1.09e-02
## 116
        1.85e-01 3.51e-02 -2.26e-01 2.44e-02 1.26e-01 1.34e-01 -3.86e-02
## 117
        3.35e-03 1.59e-03 -3.69e-03 9.04e-04 -1.15e-03 3.96e-04 -2.81e-04
## 118
        1.33e-02 1.86e-03 -2.24e-02 -1.82e-02 6.60e-03 8.65e-03 -4.86e-03
       -3.85e-02 -5.16e-03 1.24e-01 9.19e-02 -1.24e-01 -4.43e-02 5.12e-03
## 119
## 120
       -4.39e-03 -1.07e-02 4.52e-02 5.87e-02 -9.76e-02 -2.55e-02 7.51e-03
## 121
        2.02e-03 1.95e-03 -1.95e-02 4.08e-03 2.95e-02 8.98e-03 1.56e-04
        5.50e-02 -1.47e-02 -9.01e-02 1.47e-01 1.41e-01 3.42e-02 4.98e-02
## 122
```

```
-1.45e-02 9.03e-03 -1.37e-02 4.94e-02 4.51e-02 8.80e-03 1.29e-02
       -3.38e-03 -1.46e-02 5.41e-03 1.64e-02 -2.48e-02 -3.14e-02 3.68e-03
## 124
       -4.08e-02 -9.18e-03 8.83e-02 -8.65e-02 -6.56e-02 -1.00e-02 -1.25e-02
## 126
       -5.00e-03 -1.29e-03 4.32e-03 4.65e-04 -2.79e-03 -5.31e-03 -6.14e-03
## 127
        6.33e-04 -1.87e-05 -1.81e-03 -1.35e-03 1.77e-03 7.34e-04 -5.52e-06
## 128
        2.44e-03 2.19e-03 -3.52e-03 9.11e-03 1.26e-02 1.58e-02 7.72e-03
## 129
       -7.18e-05 -2.35e-04 1.86e-04 -1.40e-04 5.12e-05 -3.83e-05 -1.52e-05
       -4.65e-03 -9.32e-03 9.29e-03 -1.53e-02 1.85e-03 -5.12e-04 -1.61e-03
## 130
## 131
       -8.72e-03 -5.98e-03 7.65e-03 -4.33e-03 -8.44e-04 -4.90e-03 2.97e-03
## 132
        3.92e-05 1.91e-05 -6.12e-05 1.85e-04 -1.87e-05 1.28e-04 1.97e-05
## 133
       -5.95e-03 1.15e-03 3.21e-03 -1.46e-03 1.40e-03 -2.49e-03 -2.54e-03
       -3.87e-03 -3.14e-03 8.64e-03 2.52e-03 -1.50e-03 -2.91e-03 -4.25e-03
## 134
## 135
       -1.21e-03 -3.32e-03 2.81e-03 -6.07e-04 3.68e-04 -5.14e-04 2.44e-04
## 136
       -1.05e-04 -3.69e-03 4.06e-03 -7.42e-04 -1.19e-03 6.08e-04 3.51e-04
        1.51e-03 1.28e-03 -1.28e-03 -7.87e-04 3.03e-04 1.13e-03 4.01e-04
## 137
       -6.21e-03 -3.45e-03 1.12e-02 -1.20e-03 5.40e-04 -6.01e-03 -8.77e-04
## 138
        1.62e-04 -2.00e-03 1.71e-03 -1.44e-03 -3.29e-03 -6.87e-04 -4.73e-03
## 139
## 140
        2.91e-04 -1.74e-03 5.37e-04 -2.60e-03 -8.62e-05 4.85e-04 -9.32e-03
        1.71e-03 -7.74e-03 8.95e-03 -6.64e-04 -5.83e-03 6.24e-03 -2.45e-03
## 141
## 142
       -1.41e-04 9.10e-04 -6.29e-04 1.53e-04 5.18e-04 -2.66e-04 3.94e-04
## 143
        2.59e-03 -5.34e-03 1.40e-03 -4.18e-03 -3.27e-03 -2.74e-04 2.45e-04
        1.95e-03 -2.80e-03 2.49e-04 2.05e-04 -1.45e-03 8.11e-04 1.74e-03
## 144
       -6.34e-03 -3.95e-04 9.92e-03 -4.16e-03 -8.72e-03 8.74e-03 1.08e-03
## 145
       -1.55e-03 1.48e-02 -1.33e-02 -1.48e-03 1.26e-02 -4.67e-03 -7.90e-04
## 146
## 147
        5.14e-03 -1.35e-03 -1.33e-03 3.53e-03 4.44e-05 5.33e-03 2.10e-02
## 148
        1.75e-02 -1.46e-02 1.59e-02 -1.06e-02 -1.22e-02 1.58e-02 -8.29e-03
        1.39e-03 -9.80e-03 4.87e-03 -5.29e-03 -5.81e-03 5.59e-03 -2.29e-02
## 149
## 150
       -1.36e-03 8.00e-03 1.17e-03 1.03e-02 5.76e-04 6.91e-04 7.37e-02
        2.89e-04 -9.49e-03 6.53e-03 -4.13e-03 -4.80e-03 2.59e-03 -5.79e-03
## 151
## 152
        2.27e-03 -5.81e-03 5.16e-03 -4.68e-03 -3.29e-03 3.08e-03 -1.61e-02
## 153
        4.95e-03 -1.12e-02 5.00e-03 -1.16e-03 -9.59e-03 -2.70e-03 1.19e-04
## 154
        1.92e-03 -3.13e-03 -2.27e-03 -2.81e-03 4.04e-04 1.75e-03 -3.57e-03
## 155
       -1.18e-03 3.90e-03 -4.50e-03 9.40e-05 5.71e-03 -6.64e-04 -2.28e-03
       -3.28e-03 3.70e-03 -1.36e-03 4.67e-03 3.89e-04 -3.75e-03 2.25e-02
## 156
        4.18e-06 4.68e-03 -9.02e-03 2.60e-03 9.04e-03 -2.42e-03 -1.81e-03
## 157
       -1.80e-03 -3.00e-03 6.10e-03 -2.39e-03 -3.82e-03 4.03e-03 4.53e-04
## 158
## 159
        5.98e-04 2.18e-03 -5.62e-03 1.20e-03 5.74e-03 5.97e-05 1.31e-04
       -1.31e-03 5.77e-03 5.93e-04 -9.19e-04 -1.35e-03 -5.90e-03 4.84e-03
## 160
        8.42e-03 -1.39e-03 2.89e-03 2.17e-02 -8.82e-03 -2.21e-03 1.14e-03
## 161
       -2.26e-03 -3.12e-03 5.69e-03 -1.55e-03 -1.75e-03 2.87e-03 -2.00e-03
## 162
        2.08e-02 3.81e-02 -3.01e-02 -1.36e-02 -3.13e-02 3.25e-02 2.84e-02
## 163
        2.05e-02 2.61e-02 -1.80e-02 -3.70e-02 -9.35e-03 -1.61e-02 3.69e-06
## 164
## 165
       -2.13e-04 -1.24e-03 2.21e-04 -7.86e-04 4.83e-04 2.71e-04 -8.02e-04
       -5.36e-02 5.09e-02 -1.38e-02 1.41e-01 -9.07e-02 2.02e-02 -2.68e-02
## 166
## 167
        1.08e-02 2.41e-02 -4.19e-02 1.63e-02 -1.44e-02 -2.80e-02 -1.60e-03
        5.29e-03 -7.76e-03 -5.09e-03 -9.65e-03 -1.20e-03 6.65e-03 -3.39e-03
## 168
## 169
        7.91e-04 1.94e-03 -5.36e-04 -9.52e-04 -8.65e-04 -9.41e-04 4.70e-04
       -7.68e-03 2.24e-02 -2.08e-02 -8.43e-03 6.49e-02 -1.48e-02 4.43e-03
## 170
## 171
       -7.41e-03 2.50e-02 1.41e-02 1.08e-02 -1.61e-02 -3.13e-02 -2.47e-03
        9.88e-03 -9.94e-03 -1.23e-03 -1.37e-02 -2.86e-03 3.79e-03 -4.59e-03
## 172
        2.17e-02 3.58e-02 -3.62e-02 -6.90e-02 9.18e-03 -2.35e-04 1.20e-02
## 173
## 174
        9.95e-03 2.06e-02 1.91e-02 -6.04e-03 3.93e-03 1.42e-02 -4.01e-02
## 175
        5.39e-03 7.74e-03 -6.95e-03 9.67e-03 -1.66e-02 -3.94e-02 -8.93e-03
       -1.10e-01 7.30e-02 1.29e-02 2.57e-02 7.96e-03 1.24e-01 3.77e-02
## 176
```

```
1.74e-04 3.63e-03 2.53e-03 2.73e-02 -9.96e-03 -2.90e-03 -1.61e-02
        5.63e-04 6.31e-03 6.93e-05 4.84e-03 -1.05e-02 -3.66e-03 2.87e-03
## 178
## 179
        8.68e-04 -1.80e-03
                            2.03e-05 2.41e-04 -5.89e-03 4.77e-03 1.82e-03
## 180
       -2.10e-03 3.25e-03 3.68e-03 -2.95e-03 -1.82e-03 -9.86e-04 3.93e-03
## 181
       -3.56e-03 -1.76e-02
                            2.16e-02 -6.78e-03 9.06e-03 1.20e-02 -2.67e-02
       -2.22e-03 1.23e-02 1.46e-02 -2.85e-03 -1.60e-02 1.31e-02 1.61e-02
## 182
       -2.92e-02 2.95e-02 3.88e-04 7.57e-03 5.58e-03 4.09e-02 2.37e-02
## 183
       -2.18e-03 -3.29e-03 -4.40e-03 6.31e-02 -2.93e-02 1.11e-02 -4.14e-02
## 184
## 185
       -3.58e-02 2.63e-02 3.46e-02 -2.04e-02 -1.16e-02 -1.92e-02 1.11e-02
## 186
       -6.93e-05 -9.52e-05 1.89e-04 3.54e-03 -1.77e-03 1.06e-03 8.80e-04
## 187
        -6.68e-03 1.79e-02 -1.79e-02 2.13e-02 3.01e-02 -3.54e-02 -3.59e-03
       -1.20e-03 1.50e-02 5.08e-03 -2.56e-02 -1.00e-02 -3.93e-03 9.72e-03
## 188
## 189
        1.08e-01 -1.13e-01 -1.28e-01 -5.82e-02 5.35e-03 -3.36e-02 -2.65e-02
        2.43e-02 -3.05e-02 1.59e-02 1.95e-02 -3.95e-02 -2.36e-03 -2.00e-02
## 190
        8.57e-03 1.74e-03 -6.89e-03 -2.32e-03 -4.13e-03 -7.38e-04 2.76e-03
## 191
        -4.48e-05 -4.80e-05 5.34e-05 2.47e-05 3.57e-05 -5.05e-05 -1.13e-04
## 192
        1.79e-03 -2.03e-03 -3.46e-03 1.19e-03 -3.63e-03 -4.95e-03 5.30e-04
## 193
## 194
        1.75e-02 -6.38e-03 -3.68e-03 -9.87e-03 -1.52e-03 4.38e-03 1.23e-02
        6.29e-03 -4.31e-03 -8.00e-03 1.00e-03 -5.58e-04 -1.52e-02 -1.45e-02
## 195
## 196
        1.38e-03 -2.34e-02 5.54e-03 1.86e-03 -4.91e-03 -2.13e-02 -8.49e-04
## 197
        -7.80e-03 1.37e-03 1.71e-02 2.56e-03 -7.08e-03 -1.30e-02 8.35e-03
        2.26e-02 -3.43e-02 -2.30e-02 -8.61e-03 4.87e-03 -1.90e-02 2.70e-03
## 198
        5.73e-03 -3.68e-03 -6.66e-03 1.31e-04 6.25e-03 -2.24e-03 -1.45e-03
## 199
        7.38e-03 -1.12e-02 -5.02e-03 -3.68e-03 2.38e-03 -8.99e-03 -1.34e-03
## 200
## 201
        4.33e-03 -1.56e-03 -8.57e-03 6.16e-03 1.76e-03 -4.04e-03 -3.26e-03
## 202
       -2.43e-02 4.04e-02 -2.45e-02 -1.22e-01 6.17e-02 2.24e-02 -7.64e-03
       -1.99e-02 5.35e-03 -1.19e-02 2.92e-02 1.90e-02 -6.53e-02 -2.31e-02
## 203
## 204
        1.05e-03 2.62e-03 2.19e-03 -3.63e-03 3.07e-04 6.47e-03 -1.81e-04
        1.14e-02 -1.67e-02 -5.53e-03 8.59e-03 -1.35e-02 -2.34e-02 -9.53e-03
## 205
## 206
       -9.70e-03 1.05e-02 -1.83e-02 -1.63e-02 1.29e-02 -3.00e-02 -1.29e-02
        -7.54e-04 1.38e-02 -5.70e-03 4.34e-03 -2.98e-03 -2.16e-02 -8.79e-03
## 207
## 208
        2.70e-04 -4.19e-03 -8.68e-03 4.03e-02 -1.87e-03 -2.28e-02 -4.84e-03
## 209
        1.66e-02 -1.07e-01 2.17e-02 -2.09e-03 5.30e-02 6.40e-02 9.47e-03
       -5.70e-03 -1.34e-02 -5.49e-04 -1.56e-03 -2.93e-03 -1.34e-02 5.79e-02
## 210
        3.48e-03 5.79e-03 -1.22e-02 5.71e-03 5.05e-03 -1.44e-02 -5.19e-03
## 211
       -4.89e-03 -1.10e-02 2.15e-02 2.34e-02 -1.75e-02 -2.92e-02 -8.60e-03
## 212
## 213
       -4.45e-03 -2.91e-03 4.57e-03 -4.83e-03 4.38e-04 3.33e-03 3.00e-03
## 214
        1.98e-02 3.94e-04 -8.98e-03 -2.08e-02 1.34e-02 2.07e-02 1.31e-03
       -8.33e-03 -2.43e-03 2.50e-02 4.55e-02 -3.76e-02 -4.93e-02 -1.17e-02
## 215
       -2.56e-02 3.44e-02 2.16e-02 7.48e-02 -1.39e-02 -5.10e-02 -2.05e-02
## 216
        4.18e-03 8.36e-03 -1.56e-02 8.52e-03 5.76e-03 -7.41e-03 -8.49e-03
## 217
       -2.17e-04 -5.03e-04 3.75e-04 -3.20e-04 2.96e-04 8.07e-06 1.08e-04
## 218
## 219
       -2.52e-02 -5.07e-04 -2.68e-02 4.45e-03 1.61e-02 -6.30e-02 -2.68e-02
## 220
        1.11e-02 3.03e-02 8.93e-05 3.50e-02 -1.38e-02 -2.47e-02 -3.21e-03
## 221
       -2.37e-02 -2.45e-03 8.99e-03 4.49e-02 2.55e-03 -3.61e-02 -8.89e-03
        7.69e-03 -3.41e-03 -7.09e-03 -3.89e-03 1.90e-03 8.11e-03 1.52e-03
## 222
## 223
       -2.05e-04 -7.27e-03 6.87e-03 -4.11e-04 -3.30e-03 5.24e-03 2.17e-03
## 224
        5.83e-04 -5.70e-03 6.18e-04 9.02e-03 1.38e-02 1.33e-02 3.27e-03
## 225
        1.20e-02 -2.36e-02 -3.11e-03 1.36e-02 -4.74e-04 6.17e-03 1.70e-04
        4.70e-04 -1.06e-02 -2.16e-03 1.09e-02 9.55e-04 -1.37e-02 -7.14e-03
## 226
        -2.58e-03 4.24e-04 -8.98e-04 -4.37e-04 -3.09e-04 -3.61e-03 -8.53e-04
## 227
## 228
       -4.27e-03 -1.75e-02 3.62e-02 -1.45e-02 -1.95e-02 -1.67e-02 -8.52e-03
## 229
       -5.57e-03 -2.71e-03 -4.15e-03 -1.52e-03 1.08e-02 -2.00e-02 -6.26e-03
## 230
        6.76e-03 -1.12e-02 -1.03e-02 -6.56e-03 -1.04e-03 -2.06e-02 1.51e-02
```

```
7.59e-03 -2.80e-02 -3.13e-03 1.55e-02 8.32e-03 3.47e-03 -1.02e-02
## 232
       -8.21e-03 1.86e-03 6.01e-03 -1.20e-02 8.53e-03 6.70e-03 -6.79e-04
## 233
        2.30e-03 4.64e-04 -2.48e-03 -1.59e-03 3.87e-04 2.70e-03 3.03e-05
## 234
        8.60e-05 -3.05e-03 -1.85e-03 1.30e-04 2.77e-04 -5.55e-04 6.30e-04
## 235
        1.46e-03 -1.50e-02 5.50e-04 6.90e-03 -5.56e-03 -5.83e-04
       -3.22e-04 3.23e-03 8.81e-04 8.79e-04 2.71e-04 2.32e-04 7.04e-04
## 236
## 237
        2.27e-02 -6.17e-02 1.27e-02 1.96e-02 1.46e-02 3.46e-02 1.64e-03
## 238
       -2.71e-02 -8.26e-02 6.29e-02 4.10e-02 2.86e-02 1.58e-02 2.60e-03
## 239
        3.91e-03 -5.17e-03 -4.91e-03
                                     1.24e-03 4.69e-04 1.42e-03 -2.22e-03
## 240
       -1.01e-02 -3.35e-02 2.99e-02 5.85e-03 -1.51e-02 2.22e-02 8.50e-03
## 241
        3.63e-03 -1.07e-02 \ 1.39e-03 \ 3.10e-02 -7.93e-03 -4.63e-02 -1.72e-02
       -1.74e-03 1.96e-03 -5.05e-03 -4.63e-03 1.00e-03 -1.32e-02 -2.41e-03
## 242
## 243
       -1.06e-02 5.69e-03 -1.38e-02 -1.52e-02 4.57e-03 -4.51e-02 -1.15e-02
## 244
        2.64e-04 -2.46e-03 -7.05e-03 1.10e-02 4.89e-03 -1.99e-02 -5.01e-03
       -9.85e-03 -6.41e-04 8.24e-03 -2.12e-03 -8.79e-03 -1.27e-02 -3.84e-03
## 245
## 246
        -7.26e-03 -5.06e-02 3.04e-02 -2.26e-03 5.93e-03 2.44e-02 5.77e-03
## 247
        2.27e-02 -1.87e-02 -3.29e-02 -1.53e-02 1.94e-02 8.04e-03 -1.10e-02
## 248
        2.59e-03 -4.59e-03 -7.12e-04 4.41e-03 1.61e-03 3.95e-03 -1.07e-03
        4.09e-03 4.67e-04 -4.22e-03 7.22e-03 2.25e-03 -6.25e-03 -3.49e-03
## 249
## 250
        -1.04e-02 -8.99e-02 4.56e-02 -2.27e-02 5.46e-02 5.44e-02 1.80e-03
## 251
       -2.68e-04 2.00e-04 2.76e-04 -1.14e-04 -6.24e-04 -4.82e-04 -3.09e-05
        -4.62e-03 -1.05e-02 -4.58e-03 -3.59e-03 4.87e-03 -1.50e-02 6.01e-03
## 252
        1.18e-02 -1.01e-02 -8.96e-03 -1.89e-03 -2.18e-03 2.29e-04 3.49e-03
## 253
        1.17e-01 -2.60e-01 -1.02e-01 -6.24e-02 7.60e-02 1.38e-01 5.29e-03
## 254
## 255
        2.43e-02 7.86e-02 -5.48e-03 -3.30e-02 -1.71e-02 6.09e-02 8.60e-02
## 256
        2.90e-02 -2.42e-01 -1.12e-01 3.96e-02 1.67e-01 -5.45e-02 -1.11e-01
## 257
        -1.86e-04 -1.37e-03 -1.22e-02 -8.46e-03 4.26e-03 -2.69e-02 -3.95e-03
## 258
       -2.00e-02 -7.84e-03 4.26e-02 2.07e-02 -1.22e-02 -1.84e-02 -1.29e-02
       -4.67e-03 -4.63e-03 7.30e-03 -1.03e-03 -9.29e-04 4.63e-03 3.42e-03
## 259
## 260
       -2.98e-04 4.20e-05 6.50e-04 -1.25e-04 -3.61e-05 1.35e-04 -1.39e-03
        2.43e-02 -1.12e-02 -2.41e-02 -5.93e-03 1.74e-02 -3.45e-02 -2.81e-02
## 261
## 262
       -2.62e-02 -2.53e-02 2.20e-02 1.73e-02 -3.55e-04 -5.41e-03 9.23e-03
## 263
        1.10e-02 2.44e-03 -1.17e-02 -2.32e-03 1.50e-03 -1.85e-02 -8.95e-03
        -1.84e-02 -1.29e-01 -1.18e-01 1.04e-01 1.00e-01 -1.21e-01 -6.63e-02
## 264
## 265
        1.41e-02 2.84e-02 -4.74e-02 -2.78e-02 2.30e-02 9.05e-04 -1.68e-02
        9.14e-04 1.05e-03 4.85e-03 -4.99e-03 -3.49e-03 4.40e-05 8.94e-05
## 266
## 267
        1.76e-02 -9.95e-03 -1.55e-02 -1.01e-02 5.90e-03 -5.54e-03 6.73e-03
## 268
        1.87e-02 -5.20e-03 -1.50e-02 -1.33e-02 -2.09e-04 -1.70e-02 -6.94e-03
         2.11e-03 1.18e-04 -1.84e-04 -2.42e-03 -2.71e-04 -1.36e-03 -2.00e-04
## 269
        7.09e-03 -1.94e-03 -9.55e-03 3.14e-03 3.98e-03 1.65e-02 1.31e-02
## 270
       -2.48e-02 -5.84e-02 3.86e-02 -9.15e-03 1.49e-02 5.04e-02 1.96e-02
## 271
       -1.74e-03 -6.64e-04 -1.10e-03 6.72e-04 4.85e-04 -2.17e-03 -4.27e-04
## 272
## 273
        2.92e-02 -7.53e-03 -3.63e-02 -2.04e-02 1.36e-02 -4.79e-02 -3.42e-02
       -4.80e-04 2.85e-03 -4.59e-03 1.06e-02 2.66e-03 -9.15e-03 -5.59e-04
## 274
## 275
        1.74e-02 -1.16e-03 -4.22e-03 -2.09e-03 -6.16e-03 -4.92e-03 -4.93e-03
        9.46e-04 6.16e-04 -5.23e-04 -3.76e-04 -6.32e-04 2.00e-04 1.79e-04
## 276
## 277
         1.36e-02 1.06e-02 -1.31e-02 2.79e-03 -4.70e-03 1.55e-03 -2.22e-03
## 278
       -1.54e-02 -2.43e-02 6.83e-03 -1.01e-02 1.76e-02 -4.16e-03 2.90e-03
## 279
        -5.00e-03 2.59e-03 -6.47e-03 -8.73e-04 -3.04e-03 -5.74e-02 -2.00e-02
        1.04e-02 -4.65e-03 -1.39e-02 -9.30e-03 2.38e-04 -8.21e-03 1.02e-02
## 280
        -4.78e-03 -1.15e-02 6.06e-03 3.96e-03 6.16e-03 -3.18e-03 -1.81e-04
## 281
## 282
        1.31e-01 -1.22e+00 -5.93e-02 1.42e-01 1.61e-01 -1.13e-01 -1.54e-01
## 283
        8.59e-02 -2.75e-02 -6.20e-02 -2.45e-02 2.11e-04 3.15e-02 -3.28e-03
        8.96e-03 3.95e-03 -3.10e-03 6.47e-03 -5.12e-03 -1.04e-03 8.49e-03
## 284
```

```
-4.10e-03 -3.58e-02 -2.46e-03 2.37e-03 2.05e-02 1.87e-02 3.84e-03
## 286
        3.03e-03 -1.32e-03 -5.71e-04  2.01e-03  4.41e-05 -5.54e-04  1.01e-04
## 287
       -1.12e-02 -6.82e-03 1.48e-02 9.97e-03 -5.66e-03 -1.23e-02 4.23e-03
## 288
        1.46e-03 -2.00e-03 1.26e-03 -7.92e-03 -3.85e-03 -1.97e-03 -1.90e-03
## 289
        6.44e-03 -7.58e-03 -1.87e-02 -1.16e-02 1.65e-02 6.27e-03 9.84e-03
       -1.15e-02 7.00e-03 2.00e-03 3.28e-02 2.07e-02 1.38e-03 -6.73e-03
## 290
        3.23e-03 6.67e-04 -2.71e-03 -2.26e-04 -2.04e-03 -1.95e-03 -8.87e-04
## 291
        1.91e-03 -1.54e-03 -8.56e-04 -8.12e-04 3.49e-04 1.05e-03 1.50e-03
## 292
## 293
        7.22e-03 2.39e-02 -9.07e-03 -1.71e-02 -1.25e-02 3.77e-03 -3.42e-04
## 294
       -3.26e-03 2.06e-03 7.49e-04 -3.67e-03 -7.62e-04 9.78e-04 -2.44e-03
## 295
        1.12e-03 5.26e-02 -1.17e-02 -4.18e-02 -1.28e-02 5.46e-03 -4.42e-03
       -1.13e-02 6.01e-03 -6.65e-03 -6.69e-03 1.65e-02 2.26e-03 -1.82e-02
## 296
## 297
        2.34e-03 -9.92e-03 5.38e-03 -1.56e-04 -2.06e-02 -1.41e-02 -5.18e-03
## 298
        2.24e-02 2.66e-04 1.45e-02 -1.88e-03 -2.93e-02 1.65e-03 -3.07e-02
## 299
        1.98e-02 -1.16e-02 8.28e-04 -7.04e-02 -1.90e-02 5.75e-03 -1.03e-02
       -7.94e-04 -1.24e-03 2.76e-04 -1.60e-03 1.91e-03 -2.02e-03 -2.17e-02
## 300
        1.28e-03 3.20e-03 -1.71e-03 -7.68e-04 -3.37e-03 2.42e-03 1.59e-03
## 301
## 302
       -6.15e-04 1.39e-04 -4.11e-04 1.12e-03 2.15e-03 2.56e-03 7.19e-04
        2.08e-03 -2.25e-02 -3.23e-03 -2.68e-03 8.90e-03 -1.59e-03 -5.63e-03
## 303
## 304
       -1.50e-03 -1.11e-03 3.07e-04 1.34e-03 2.01e-03 7.15e-04 2.64e-04
## 305
        5.56e-03 -1.77e-02 -5.33e-03 1.37e-02 1.52e-02 6.10e-03 -5.09e-03
       -5.38e-03 -2.38e-02 1.42e-03 2.69e-03 3.94e-03 7.56e-03 1.08e-03
## 306
        8.23e-03 -1.90e-02 -2.21e-02 -5.83e-03 1.77e-02 2.75e-03 -4.53e-03
## 307
## 308
        4.68e-04 -5.95e-03 7.15e-03 -4.48e-03 -9.06e-03 5.25e-04 4.28e-03
## 309
        1.32e-02 -2.94e-03 -5.84e-03 2.17e-03 -1.32e-02 -1.77e-03 2.50e-03
## 310
       -4.12e-03 1.47e-03 2.37e-03 4.70e-03 3.84e-03 2.25e-03 1.50e-03
        3.68e-02 -7.79e-02 -3.17e-02 1.37e-02 1.77e-02 3.56e-02 -2.53e-04
## 311
## 312
       -1.92e-02 -3.38e-02 3.88e-02 6.01e-03 -1.06e-02 -1.09e-02 1.27e-02
        1.01e-02 4.83e-03 -1.00e-02 7.03e-03 -3.95e-03 -5.77e-03 2.28e-03
## 313
## 314
        1.23e-03 -2.03e-02 6.43e-03 6.33e-03 1.80e-02 1.06e-02 -3.52e-03
       -5.86e-04 2.32e-03 -8.47e-04
## 315
                                     2.43e-03 -2.86e-04 -1.89e-03 -4.74e-04
## 316
       -2.98e-03 -1.03e-03 5.72e-04
                                     7.55e-03 3.35e-03 2.25e-03 -5.75e-05
## 317
        2.46e-05 -1.00e-02 -1.14e-02 1.59e-02 -9.00e-04 -1.70e-02 -1.98e-02
        5.63e-04 7.42e-04 2.14e-05 6.87e-04 -1.03e-03 -3.43e-04 2.60e-04
## 318
## 319
       -1.45e-02 -1.73e-02 7.38e-03
                                     2.92e-02 2.32e-02 1.26e-02 5.15e-03
        5.83e-04 -1.52e-02 2.91e-04 1.41e-02 4.72e-03 6.25e-03 1.52e-03
## 320
## 321
        3.56e-03 4.93e-03 -1.24e-02 1.09e-02 -3.44e-03 -1.06e-02 -7.22e-04
## 322
       -1.62e-03 -5.21e-04 -4.10e-03 -3.14e-03 1.11e-02 4.35e-03 -3.59e-03
       -2.27e-04 1.81e-03 -2.46e-03 4.82e-03 -2.49e-03 -3.03e-03 5.29e-04
## 323
       -2.08e-03 1.66e-03 -1.25e-03 1.98e-03 8.72e-03 9.62e-03 2.14e-03
## 324
        2.09e-03 -2.01e-03 -5.40e-04 1.19e-02 -2.88e-03 -1.70e-03 3.85e-04
## 325
       -7.37e-03 7.53e-02 1.33e-02 -6.92e-02 -1.66e-02 -1.17e-02 4.37e-03
## 326
## 327
       -2.89e-02 -2.32e-02 2.43e-02 3.79e-02 1.39e-02 1.20e-02 1.06e-02
       -4.35e-03 2.36e-03 -3.07e-03 9.25e-04 9.44e-03 1.26e-04 -1.73e-03
## 328
## 329
        3.11e-03 1.35e-02 2.73e-03 -2.44e-02 -9.15e-03 1.21e-02 5.59e-03
       -1.93e-03 -6.58e-03 -1.35e-03 -3.03e-03 6.99e-03 4.08e-03 -4.34e-03
## 330
## 331
       -6.70e-04 -2.30e-03 -5.11e-03 -7.35e-04 4.19e-03 -2.50e-03 -3.01e-03
## 332
        2.14e-03 3.48e-03 -1.19e-03 3.33e-04 -1.77e-03 -2.64e-04 6.26e-05
## 333
       -4.17e-03 6.06e-03 8.54e-03 -2.40e-02 -1.71e-02 9.34e-03 5.56e-03
## 334
       -6.90e-04 -2.98e-03 3.79e-03 6.45e-05 -3.53e-03 -8.93e-04 -2.11e-03
        1.78e-02 -6.90e-03 2.47e-03 -9.15e-03 -2.24e-02 -1.09e-02 -3.06e-03
## 335
## 336
        1.28e-03 -1.25e-03 -4.70e-04 -2.17e-04 1.21e-03 1.33e-03 -9.18e-04
## 337
       -7.32e-03 -5.75e-02 -2.55e-03 8.78e-03 4.05e-02 2.34e-02 1.65e-03
        4.69e-03 2.79e-03 -7.55e-03 4.32e-03 -7.63e-03 -5.94e-03 6.46e-04
## 338
```

```
8.18e-03 -9.23e-02 -1.71e-02 8.21e-03 2.84e-02 2.79e-02 -3.31e-03
        6.63e-03 6.47e-03 3.25e-03 3.94e-03 -1.36e-02 -4.64e-03 -3.75e-03
## 340
## 341
       -8.43e-03 -9.37e-03 5.65e-04 -3.02e-03 1.70e-02 9.03e-03 1.50e-03
       -2.20e-03 -5.23e-02 -2.11e-02 -9.52e-03 3.73e-02 8.01e-03 -1.45e-02
## 342
## 343
        1.40e-02 -8.99e-04 -9.85e-03 4.56e-03 -1.07e-02 -9.50e-03 -2.08e-03
       -3.97e-03 4.78e-03 -1.40e-02 2.94e-02 3.80e-02 1.20e-02 7.31e-04
## 344
## 345
        9.69e-03 -1.78e-03 -4.76e-03 2.51e-03 -8.58e-03 -1.26e-03 2.26e-03
       -4.09e-02 -2.67e-02 3.85e-02 3.53e-03 1.69e-02 9.46e-03 3.10e-03
## 346
## 347
        -1.23e-03 -6.74e-03 8.64e-03 -3.45e-03 -4.08e-03 5.03e-03 -1.45e-02
## 348
        2.20e-02 2.13e-02 -2.42e-02 -2.94e-04 -5.50e-03 -4.63e-03 -2.78e-03
## 349
        2.76e-03 2.58e-03 -2.39e-03 -3.13e-03 -3.19e-03 -2.15e-03 -9.41e-04
        5.82e-04 1.36e-03 5.09e-05 -3.52e-03 -2.70e-03 -7.88e-04 -3.23e-04
## 350
## 351
        1.61e-02 -2.55e-02 -1.17e-02 -4.47e-04 -7.89e-03 -1.77e-02 -6.97e-03
## 352
        5.28e-03 -7.83e-03 -1.50e-02 1.51e-02 1.97e-02 1.36e-02 4.70e-03
## 353
       -7.69e-03 -1.21e-03 -3.55e-03 2.15e-03 9.28e-03 5.91e-03 4.32e-04
## 354
        1.33e-03 3.97e-03
                            6.68e-04 4.21e-03 -3.00e-03 1.66e-03 7.98e-04
       -2.17e-03 -1.65e-03 6.79e-04 5.07e-03 4.56e-03 2.09e-04 -1.49e-04
## 355
  356
       -2.96e-03 1.28e-03 1.29e-03 6.52e-03 4.67e-03 2.32e-03 8.70e-04
## 357
        2.34e-03 9.08e-04 1.63e-03 1.96e-04 -8.54e-03 7.87e-04 4.06e-03
## 358
       -1.75e-03 9.03e-04 -1.37e-03 -1.20e-05
                                               4.10e-03
                                                        1.62e-03 -5.34e-04
## 359
       -2.95e-03 -2.81e-03 2.18e-03 -2.10e-03 1.03e-03 1.86e-03 3.51e-04
        6.22e-04 -1.08e-02 -3.43e-03 4.28e-04 1.09e-02 5.38e-03 -7.24e-04
## 360
       -3.10e-02 -1.61e-02 -4.66e-03 3.02e-02 6.17e-02 1.16e-02 1.30e-02
## 361
## 362
        3.23e-03 -3.70e-03 4.55e-05 8.11e-04 -6.24e-03 -3.14e-03 8.29e-04
## 363
        4.74e-04 8.55e-06 -1.83e-04 -4.90e-05 -4.31e-04 -1.86e-04 1.39e-05
  364
       -6.64e-03 -4.24e-03 1.83e-03 -1.57e-03 3.97e-03 4.07e-03 -1.49e-03
       -4.85e-04 1.52e-03 -1.12e-03 3.24e-03 -5.52e-04 -1.55e-03 -1.03e-02
##
  365
##
  366
        6.25e-03 -6.32e-03 -3.00e-03 -9.91e-04 -1.11e-02 5.40e-03 -9.25e-04
        4.89e-03 -4.86e-03 -3.51e-03 5.11e-04 -1.67e-03 -2.97e-03 -1.36e-03
## 367
## 368
        2.06e-02 1.51e-03 -1.02e-02 -3.03e-02 -5.08e-04 3.28e-03 -2.31e-03
       -9.00e-04 -8.34e-04 -4.29e-03 -3.49e-03 2.27e-03 -1.01e-03 2.52e-03
## 369
## 370
       -4.71e-03 1.68e-03 7.84e-03 3.76e-03 -1.74e-02 -7.56e-03 -1.90e-03
## 371
       -1.32e-02 6.88e-03 7.17e-03 2.05e-02 -1.47e-02 -1.02e-03 1.20e-02
       -7.45e-03 6.51e-03 7.85e-03 1.88e-02 -4.33e-03 -1.55e-02 4.35e-03
## 372
        7.65e-03 -1.01e-02 -4.88e-03 3.07e-03 2.39e-03 -7.30e-03 2.81e-05
## 373
        4.95e-04 -1.31e-04 1.12e-03 -2.15e-03 -3.70e-04 -1.86e-04 -7.74e-05
## 374
## 375
        6.84e-04 9.55e-04 -4.40e-04 -5.38e-04 -5.08e-05 8.85e-04 -6.77e-04
## 376
       -1.14e-04 3.66e-03 1.06e-02 -1.40e-02 -1.79e-02 -1.52e-02 2.19e-03
        1.02e-03 -2.07e-03 3.05e-03 -1.97e-03 -3.65e-03 1.99e-03 -7.88e-04
## 377
        1.99e-03 -6.81e-03 3.18e-04 -7.07e-04 1.90e-03 -9.37e-04 -1.24e-03
## 378
        2.91e-03 1.22e-04 8.92e-03 -3.84e-03 -7.97e-03 -4.74e-03 2.88e-03
## 379
## 380
        2.55e-03 8.12e-04 -1.28e-03 3.97e-03 -1.25e-03 -2.81e-03 1.92e-03
## 381
        6.41e-03 -5.66e-03 -2.17e-03 -1.19e-04 -5.77e-03 -1.21e-02 -8.62e-04
## 382
        9.74e-04 -3.35e-03 1.36e-03 -5.80e-04 -4.47e-04 -4.15e-04 1.22e-03
## 383
        4.93e-04 -1.19e-03 2.24e-03 -1.01e-04 -1.87e-03 -6.26e-04 1.88e-04
        -1.58e-03 3.44e-03 -1.97e-03 5.08e-03 2.89e-03 -2.48e-04 -5.09e-04
## 384
## 385
        1.21e-02 -4.79e-03 -5.98e-03 -3.16e-03 -1.85e-02 -2.62e-02 6.50e-03
## 386
        8.48e-03 -4.32e-03 4.23e-03 2.65e-02 -1.71e-02 -9.12e-03 2.64e-03
## 387
        1.16e-02 -5.80e-04 -2.31e-02 -9.06e-03 9.54e-03 7.61e-03 -4.94e-02
        5.59e-03 -1.39e-03 -1.18e-03 1.74e-03 -4.98e-03 -3.03e-03 8.66e-04
## 388
       -1.54e-03 -4.79e-04 2.07e-03 5.44e-04 -1.05e-03 6.33e-04 -7.48e-04
## 389
## 390
       -2.00e-04 -1.67e-03 5.20e-04 1.07e-04 6.00e-04 -3.89e-04 1.12e-03
## 391
       -1.11e-04 -2.42e-03 3.41e-03 2.33e-03 -1.10e-03 -7.32e-04 -1.28e-03
## 392
        1.62e-02 -1.51e-02 -8.36e-03 -3.64e-04 -5.48e-03 -2.09e-02 5.49e-03
```

```
9.55e-03 -2.07e-02 4.63e-03 -1.53e-02 -2.71e-03 2.04e-02 -2.12e-02
       -8.36e-03 -1.10e-03 4.04e-03 -1.26e-02 8.82e-03 -1.53e-02 -3.71e-02
## 394
## 395
       -2.04e-03 -3.89e-03 4.33e-03 -2.01e-03 -1.66e-03 -2.11e-03 1.90e-03
        7.17e-03 -4.57e-03 -7.05e-03 -1.95e-03 2.52e-03 -7.76e-03 -8.41e-03
## 396
## 397
        1.17e-03 -4.45e-03 -1.11e-03 2.07e-04 1.29e-03 -1.27e-03 -2.19e-03
       -8.63e-04 -2.93e-03 4.62e-03 -4.31e-03 -2.02e-03 -2.26e-03 3.18e-03
## 398
        7.80e-04 -7.21e-04 -1.45e-04 1.62e-04 -8.51e-05 4.72e-04 2.46e-04
## 399
        6.11e-03 -2.83e-03 1.05e-03 1.93e-03 -4.29e-03 -4.28e-03 7.79e-04
## 400
## 401
        7.41e-04 -9.85e-05 -1.10e-03 -6.57e-04 3.17e-03 -2.50e-03 -9.49e-04
## 402
       -3.66e-05 4.35e-04 -7.33e-04 -2.32e-04 1.02e-03 -2.32e-04 9.32e-05
## 403
        6.75e-04 4.36e-04 2.03e-03 3.64e-04 -1.41e-03 4.55e-05 -4.25e-04
        2.09e-04 1.68e-03 -1.44e-03 -2.41e-03 2.46e-03 -2.83e-03 -2.49e-03
## 404
## 405
       -8.57e-04 4.91e-03 6.07e-03 1.42e-02 4.11e-03 -1.56e-02 -5.32e-03
## 406
        1.69e-04 8.98e-04 -2.95e-04 2.68e-06 8.96e-04 -8.31e-04 -1.00e-03
       -4.39e-03 -1.63e-02 4.93e-03 -9.29e-03 -8.15e-03 1.60e-02 7.12e-03
## 407
## 408
        8.92e-03 -4.78e-03 -3.70e-03 -5.43e-03 -1.41e-02 2.67e-03 3.22e-03
       -1.29e-03 -3.17e-03 1.42e-03 -2.10e-03 -5.38e-03 -3.37e-03 4.96e-04
## 409
       -5.95e-03 -5.91e-03 -3.76e-03 -2.11e-02 3.53e-03 -3.90e-03 -1.79e-03
        1.09e-02 9.10e-03 -3.60e-02 -2.42e-02 3.13e-03 -9.36e-04 1.31e-03
## 411
## 412
       -7.57e-03 -1.25e-02 1.06e-02 -2.76e-02 -2.39e-02 3.29e-02 1.65e-02
## 413
       -1.16e-02 3.65e-04 9.45e-03 3.00e-03 -1.36e-03 8.27e-03 -4.26e-03
       -5.00e-04 1.20e-03 3.36e-03 5.21e-03 9.08e-04 1.06e-03 -1.54e-05
       -1.57e-02 -2.96e-03 -2.32e-03 -3.87e-03 -9.78e-03 -8.90e-03 -1.55e-02
## 415
        1.39e-02 -1.28e-02 -5.90e-03 -1.49e-02 -1.41e-03 1.36e-02 8.78e-04
## 416
## 417
        3.70e-03 -5.01e-04 -5.12e-03 4.12e-03 5.57e-03 -1.05e-02 -6.37e-03
## 418
       -9.05e-03 3.77e-03 2.69e-03 1.99e-03 -3.38e-03 -3.90e-03 3.17e-03
       -1.21e-02 2.86e-03 1.76e-02 -1.58e-02 -1.25e-02 2.25e-02 1.14e-02
## 419
## 420
       -2.21e-04 -7.94e-04 4.08e-03 1.31e-02 -7.44e-03 3.46e-05 2.12e-03
       -2.58e-04 4.68e-04 -1.63e-04 6.39e-04 2.24e-04 -1.28e-04 -1.61e-03
## 421
## 422
        3.22e-02 -4.48e-02 -2.40e-02 -7.91e-02 -6.16e-03 5.89e-02 1.05e-02
        8.28e-03 1.00e-02 5.56e-03 8.16e-03 5.29e-03 -4.46e-02 -1.67e-02
## 423
## 424
       -2.98e-03 -4.58e-03 6.12e-03 -6.50e-03 -6.62e-03 6.92e-03 6.66e-03
## 425
        4.74e-03 1.59e-02 6.29e-03 -2.13e-02 -2.60e-02 1.87e-02 6.37e-03
        1.27e-03 2.36e-03 -3.11e-03 6.30e-03 7.86e-03 -6.08e-03 -5.31e-03
## 426
## 427
        -4.14e-03 2.47e-03 -3.20e-03 4.12e-03 -5.77e-03 4.55e-03 6.64e-03
        3.12e-03 3.76e-03 -8.74e-04 -1.94e-02 -7.35e-03 3.00e-03 4.05e-03
## 428
## 429
       -2.72e-03 -1.48e-02 3.18e-03 -1.97e-03 -4.35e-03 -4.71e-03 -2.10e-04
## 430
       -4.07e-03 -1.84e-03 5.31e-03 1.01e-03 -2.90e-03 2.29e-04 1.83e-03
       -9.08e-05 8.53e-04 -1.24e-03 -1.97e-04 1.31e-03 3.45e-03
## 431
        3.95e-03 -5.65e-03 -1.61e-03 -3.48e-03 -1.98e-03 1.88e-03 1.60e-03
## 432
        1.46e-04 -2.94e-03 6.84e-04 -7.17e-04 -3.02e-03 3.14e-04 1.02e-03
## 433
## 434
        7.15e-03 1.79e-03 -7.48e-03 -6.49e-03 -1.44e-02 -6.37e-03 -1.68e-03
## 435
        5.33e-03 -6.15e-03 -8.13e-03 -5.32e-03 8.00e-03 7.30e-03 4.90e-03
## 436
       -5.30e-04 -5.63e-03 6.16e-03 -2.04e-03 -1.67e-02 2.62e-02 1.26e-02
## 437
        4.55e-03 -6.78e-03 3.56e-03 -1.22e-03 -1.73e-02 -3.61e-03 -3.83e-03
        3.27e-04 1.26e-03 -2.55e-03 3.50e-03 4.86e-03 7.69e-04 -1.13e-03
## 438
## 439
        1.95e-03 7.40e-03 4.52e-03 2.00e-03 -4.69e-03 3.98e-03 1.88e-03
## 440
        3.22e-02 2.65e-02 -2.60e-02 6.90e-03 -1.39e-02 -1.85e-02 -7.05e-03
## 441
       -1.88e-03 7.90e-03 -1.24e-02 -4.88e-02 3.78e-03 1.21e-02 5.22e-04
        7.35e-05 1.07e-03 -8.03e-04 1.84e-02 1.19e-02 -8.78e-03 1.94e-02
## 442
        9.29e-04 1.52e-04 2.41e-04 7.43e-04 -1.44e-03 2.55e-03 4.69e-04
## 443
## 444
       -4.70e-03 -5.97e-03 9.79e-03 6.59e-04 3.75e-03 1.45e-02 8.34e-03
## 445
       -3.00e-03 -3.78e-04 2.55e-03 1.11e-03 8.05e-04 4.28e-03 -3.93e-03
       -8.65e-03 -3.92e-04 1.52e-02 -1.24e-02 7.16e-03 3.13e-02 9.23e-03
## 446
```

```
2.45e-03 3.57e-03 1.38e-02 -4.86e-02 -3.09e-02 5.67e-02 2.79e-02
        2.03e-02 4.68e-02 -7.58e-02 5.59e-02 -1.28e-02 -6.00e-02 9.05e-03
## 448
## 449
       -3.95e-03 2.14e-04 4.17e-03 2.33e-04 3.97e-03 -5.32e-03 -4.29e-03
        1.69e-03 -5.40e-05 -3.81e-04 -2.38e-03 -4.24e-03 -2.90e-03 -1.66e-04
## 450
## 451
       -5.80e-03 1.94e-03 1.14e-02 1.08e-02 -5.99e-03 -2.04e-02 -8.95e-03
       -2.03e-05 -8.50e-05 6.88e-05 -2.70e-04 -3.96e-04 -1.10e-03 3.35e-04
## 452
        1.87e-02 -2.73e-02 -2.11e-02 -2.48e-02 -1.51e-02 -7.42e-03 -5.14e-03
## 453
        7.30e-03 6.30e-03 -9.07e-03 -1.37e-02 1.78e-02 1.38e-02 1.21e-04
## 454
## 455
        4.97e-03 4.88e-03 -1.51e-03 4.88e-03 -9.82e-03 -8.34e-04 -9.06e-04
## 456
        1.24e-02 -6.36e-03 -7.04e-02 1.10e-02 7.52e-02 6.82e-02 1.89e-02
## 457
        6.91e-03 -3.90e-03 -6.52e-03 2.27e-03 -1.15e-02 -3.23e-03 -6.35e-03
       -9.31e-03 1.59e-02 -2.27e-02 6.43e-03 -4.18e-02 -1.51e-02 -2.53e-02
## 458
## 459
       -4.13e-03 1.17e-04 3.95e-03 4.15e-03 1.90e-03 -2.06e-03 1.11e-03
## 460
       -1.80e-02 8.84e-03 1.95e-02 2.25e-02 1.41e-02 -2.76e-03 1.29e-02
       -3.41e-02 4.02e-03 2.20e-02 3.38e-02 1.72e-02 -2.09e-02 1.74e-03
## 461
## 462
       -2.14e-02 -1.72e-02
                            2.56e-02 5.82e-02 -3.56e-02 -4.09e-02 -1.69e-02
## 463
       -5.35e-04 9.83e-03 -3.83e-03 -1.63e-03 4.88e-03 3.17e-03 2.97e-03
       -7.96e-03 6.87e-02 -6.42e-03 -7.34e-02 5.05e-02 4.22e-02 7.19e-03
## 464
       -3.19e-02 2.66e-02 2.52e-02 7.47e-03 9.42e-03 1.59e-02 3.25e-03
## 465
## 466
        8.62e-03 4.61e-02 -2.63e-02 4.03e-02 -6.29e-02 5.05e-03 -1.09e-02
## 467
       -1.41e-02 -3.54e-02 1.91e-02 4.44e-02 -1.56e-02 -1.12e-02 -2.13e-03
        2.07e-03 -6.63e-03 1.91e-03 -2.53e-03 8.29e-03 1.87e-03 4.07e-04
## 468
        9.59e-02 -2.47e-02 -4.79e-02 -4.36e-03 -7.23e-02 1.96e-02 -1.96e-02
## 469
       -3.59e-03 1.53e-03 -3.25e-03 1.07e-02 6.89e-03 -5.36e-03 7.33e-04
## 470
## 471
        2.77e-02 1.84e-02 -2.77e-02 -3.57e-02 2.18e-02 7.63e-03 -4.45e-03
## 472
       -5.12e-02 6.85e-02 1.15e-02 5.13e-02 -6.16e-02 -3.37e-02 6.22e-03
        4.82e-03 -4.20e-03 -5.97e-03 -1.03e-02 7.66e-03 7.51e-03 2.18e-03
## 473
## 474
        8.85e-02 7.52e-02 -9.19e-02 -3.12e-02 7.61e-02 4.47e-02 -2.27e-03
## 475
        4.80e-03 1.49e-02 -4.58e-03 -1.10e-02
                                              1.03e-02 7.34e-03 5.09e-03
## 476
        7.38e-02 7.51e-02 -5.29e-02 -6.47e-02 4.86e-02 2.76e-02 -1.77e-03
       -1.50e-04 8.32e-03 -1.86e-03 7.29e-04
                                               1.45e-02 -3.02e-03 5.67e-03
## 477
## 478
        5.59e-02 1.84e-02 -5.46e-02 -6.88e-02
                                               6.03e-02 3.03e-02 -9.49e-05
## 479
       -8.32e-04 7.62e-04 5.23e-04 4.25e-04
                                               1.38e-04
                                                        1.65e-04 2.54e-04
        1.16e-02 -3.53e-02 -6.61e-03 -3.39e-02
## 480
                                              4.11e-02
                                                        3.11e-02 9.99e-03
## 481
        1.22e-03 -1.49e-02
                           1.87e-02 -9.37e-04
                                               1.49e-02
                                                        1.02e-02 6.77e-03
       -1.55e-03 -1.80e-03 2.34e-03 2.08e-03 2.35e-03 7.73e-04 3.46e-03
## 482
## 483
        3.23e-02 1.22e-02 -3.36e-02 -1.73e-02 -1.27e-02 -1.87e-02 -1.22e-02
## 484
        1.81e-02 -5.61e-03 2.30e-04 9.26e-02 -7.94e-02 -2.12e-02 -1.57e-02
## 485
        5.88e-04 1.53e-03 -7.55e-04 -1.20e-03 4.72e-04 1.50e-03 5.22e-04
        5.17e-03 -3.27e-02 -1.60e-02 1.16e-02 -1.05e-02 -3.58e-03 -1.29e-02
## 486
       -3.48e-02 4.69e-02 -3.71e-03 -3.57e-02 4.69e-02 1.11e-02 2.23e-02
## 487
        6.50e-03 -1.07e-03 -2.38e-03 1.05e-03 -6.94e-03 -3.45e-04 -2.44e-03
## 488
## 489
       -8.49e-04 -4.22e-03 -7.38e-03 -6.71e-03 -1.08e-02 2.97e-03 -2.50e-03
## 490
        4.19e-03 7.44e-03 1.36e-03 6.01e-03 6.47e-03 8.03e-04 1.37e-03
## 491
       -4.32e-03 2.71e-03 7.10e-03 1.55e-02 1.56e-02 3.87e-03 1.97e-02
        3.89e-02 2.02e-02 2.34e-02 3.16e-03 -6.28e-02 -6.06e-02 -1.62e-02
## 492
## 493
        1.99e-03 -6.41e-03 1.16e-03 -1.32e-03 4.48e-03 1.31e-03 8.51e-04
## 494
        8.10e-02 5.46e-02 -7.71e-02 -5.90e-02 6.63e-02 1.58e-02 -1.30e-02
## 495
        7.84e-02 6.36e-03 -6.15e-02 -5.55e-02 5.11e-02 -6.86e-02 -4.74e-02
       -3.00e-02 1.05e-02 3.00e-02 2.99e-02
                                              1.15e-02 -5.78e-03 1.29e-02
## 496
        1.11e-03 4.63e-02 1.51e-02 -3.16e-02 -1.39e-03 5.58e-03 1.15e-02
## 497
## 498
       -7.15e-04 -8.94e-05 5.75e-04 5.23e-04 9.36e-04 -5.39e-04 3.39e-04
## 499
        2.05e-02 -2.36e-02 -8.33e-03 -2.59e-02 2.22e-02 2.11e-02 4.09e-03
       -2.11e-03 -8.52e-04 2.11e-03 -2.41e-04 2.86e-03 5.24e-04 3.83e-03
## 500
```

```
1.12e-03 -8.29e-04 6.98e-04 1.88e-03 -4.84e-04 2.52e-03 1.16e-03
       -1.14e-04 -4.59e-05 2.40e-04 -5.91e-05 -1.40e-04 1.34e-04 1.62e-04
## 502
## 503
       -4.71e-03 2.45e-03 5.81e-03 -2.85e-03 6.29e-03 -9.23e-04 -5.77e-03
       -7.80e-04 1.87e-03 4.52e-03 2.89e-03 -4.97e-03 -5.83e-03 -1.87e-03
## 504
## 505
       -1.45e-02 -7.61e-03
                            2.68e-02 2.09e-02 1.86e-02 -2.51e-02 -1.42e-02
       -3.13e-03 5.29e-03 5.93e-04 1.07e-02 3.56e-04 1.38e-03 1.76e-03
## 506
        8.45e-04 -4.43e-03 1.02e-03 -9.06e-03 -4.95e-03 -1.30e-03 5.81e-03
## 507
       -2.99e-04 -9.15e-03 9.76e-03 2.44e-03 1.24e-02 1.16e-02 -1.30e-03
## 508
## 509
       -1.05e-02 1.11e-02 1.18e-02 9.98e-03 -1.79e-02 -1.83e-02 -1.50e-02
## 510
        1.76e-02 -4.58e-02 1.31e-02 1.08e-02 -1.39e-02 -3.59e-02 -1.15e-02
## 511
       -4.13e-04 2.80e-03 -1.71e-03 -1.08e-03 1.75e-03 -1.31e-03 -1.28e-03
       -1.46e-02 -3.03e-02 4.39e-02 4.05e-02 -3.12e-02 -7.75e-02 -2.16e-02
## 512
## 513
        6.08e-03 -7.84e-03 5.60e-03 -2.06e-03 -5.17e-04 -3.02e-03 -6.09e-03
## 514
        3.26e-02 5.47e-02 -4.66e-02 -6.18e-02 -3.57e-02 7.68e-02 2.57e-02
## 515
        3.18e-02 -7.45e-03 -5.01e-02 -1.50e-02  1.41e-02  5.61e-02  9.48e-03
## 516
        6.84e-05 6.23e-04 -7.86e-04 1.26e-03 1.78e-03 9.98e-04 3.73e-04
         1.09e-02 -4.87e-03 -8.80e-03 -9.49e-03 -1.26e-02 1.07e-02 6.40e-03
## 517
        -7.95e-03 -2.78e-02 5.39e-02 5.91e-03 -1.42e-03 -5.61e-02 -3.25e-02
       -1.30e-03 3.26e-03 -3.28e-03 5.08e-03 5.13e-04 -2.50e-03 3.74e-03
## 519
## 520
        1.46e-02 -2.82e-02 2.41e-02 -2.00e-02 -9.59e-03 8.67e-03 -3.91e-03
## 521
       -2.37e-03 2.74e-04 4.23e-03 -8.30e-03 2.10e-03 5.71e-03 7.51e-03
       -1.32e-02 -9.05e-02 8.40e-02 -2.37e-02 -4.66e-02 -9.85e-02 -4.06e-02
## 522
       -3.14e-02 -1.75e-02 4.52e-02 -1.36e-02 -1.88e-02 -1.44e-02 6.34e-03
## 523
         3.49e-02 2.73e-02 -4.84e-02 2.04e-02 -5.14e-02 -7.79e-02 1.13e-02
## 524
## 525
        1.99e-02 8.53e-03 -3.07e-03 -9.17e-04 -3.80e-02 1.49e-02 4.44e-03
## 526
       -1.67e-02 8.18e-03 3.58e-02 1.67e-03 -4.17e-02 1.39e-02 1.46e-02
        -6.32e-04 2.80e-04 4.99e-03 8.85e-04 8.83e-03 -4.79e-03 -5.05e-03
## 527
## 528
        4.56e-03 -3.88e-04 -1.69e-03 -5.99e-03 -6.29e-05 3.66e-04 -2.43e-03
       -3.03e-03 -2.72e-02 -1.07e-03 -1.58e-02 3.39e-02 2.23e-02 1.32e-03
## 529
## 530
        3.51e-03 3.14e-03 -4.09e-03 -3.83e-03 2.33e-03 -2.39e-03 -5.15e-03
        4.15e-03 4.49e-03 -7.91e-04 8.09e-03 2.65e-03 4.64e-03 -1.00e-03
## 531
## 532
        -1.39e-03 1.43e-03 -2.22e-04 -7.24e-04 1.81e-03 1.42e-04 -2.95e-04
## 533
        4.31e-03 -1.20e-02 -4.90e-03 -1.82e-02 1.31e-02 1.78e-02 -1.17e-03
        2.72e-03 -3.72e-03 -1.14e-03 -1.78e-03 -3.33e-03 -2.17e-03 -1.42e-03
## 534
## 535
        2.51e-03 -9.16e-03 1.32e-02 -2.11e-03 -4.12e-03 -2.97e-03 -5.32e-03
        3.99e-04 - 3.67e-04 - 4.08e-04 - 5.67e-04 - 8.87e-05 2.31e-04 1.56e-04
## 536
## 537
        3.20e-02 1.27e-02 -5.86e-03 3.86e-02 -5.53e-03 -4.04e-02 -5.72e-02
## 538
        -2.70e-03 3.36e-04 -3.15e-03 1.57e-03 1.54e-03 -4.08e-03 -6.14e-04
         3.40e-05 6.31e-04 3.51e-04 -1.68e-03 -1.07e-03 -1.97e-03 -9.60e-04
## 539
        9.61e-03 2.00e-02 -7.66e-03 -4.26e-03 -1.73e-02 1.13e-02 2.77e-03
## 540
       -1.59e-03 9.35e-04 3.22e-03 1.44e-03 -1.32e-03 -5.13e-03 -1.90e-03
## 541
        1.73e-03 -1.84e-03 -1.25e-03 -2.74e-03 -1.60e-03 2.10e-03 5.52e-04
## 542
## 543
        8.57e-03 -1.67e-02 -3.72e-03 8.08e-03 2.57e-03 -7.13e-03 -2.58e-03
        3.69e-02 3.73e-03 -1.06e-02 -8.56e-03 -1.83e-02 3.49e-02 1.79e-03
## 544
## 545
        -1.03e-02 -1.99e-02 2.39e-02 7.64e-03 7.26e-03 -1.68e-02 -4.10e-03
        4.35e-03 2.66e-03 -4.60e-03 1.18e-03 -1.85e-03 8.95e-04 4.12e-05
## 546
## 547
        -3.06e-03 3.05e-03 3.09e-03 -3.06e-04 2.27e-03 3.53e-03 1.29e-03
## 548
        3.13e-02 -3.87e-02 -1.01e-02  4.00e-03  7.78e-03 -1.53e-02 -3.13e-02
## 549
       -2.23e-02 -1.58e-02 5.08e-02 2.04e-02 -7.91e-03 3.01e-02 3.59e-02
## 550
        -9.63e-04 1.86e-02 -5.81e-03 -2.71e-02 -2.81e-03 -4.27e-03 -1.00e-02
        -6.49e-03 -1.29e-02 2.28e-02 3.48e-03 -1.72e-03 1.14e-03 7.87e-03
## 551
## 552
       -5.10e-03 6.11e-03 -7.73e-03 4.44e-02 2.05e-02 9.20e-03 1.35e-02
        2.31e-02 -1.70e-02 -4.05e-03 -1.43e-02 1.58e-03 -4.20e-03 -1.40e-02
## 553
## 554
        1.78e-02 -4.57e-02 -1.27e-02 -4.75e-02 9.33e-03 -1.12e-02 -1.89e-02
```

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5.78e-03 1.16e-02 -6.28e-03 1.09e-02 -2.02e-03 -7.14e-03 -1.09e-03
       -2.62e-02 2.70e-03 3.72e-03 -3.36e-02 4.59e-02 -3.98e-03 -1.77e-02
## 556
## 557
        3.46e-03 -1.13e-02 -2.24e-03 -8.27e-03 -9.75e-03 -6.36e-03 7.00e-03
       -3.22e-05 -2.65e-04 1.61e-04 -1.12e-04 -1.40e-04 -2.90e-04 -1.32e-04
## 558
## 559
       -5.71e-03 -1.19e-02 6.68e-02 6.61e-02 -5.00e-02 -1.36e-02 1.13e-02
        3.90e-03 -6.15e-03 -4.20e-03 4.48e-03 -9.80e-03 -1.63e-02 -6.89e-03
## 560
       -2.61e-02 2.09e-02 3.16e-02 1.87e-02 -6.98e-03 -6.63e-03 -6.80e-03
## 561
        1.93e-02 -2.68e-02 1.25e-03 -3.23e-04 3.75e-02 -4.15e-02 -2.83e-02
## 562
## 563
       -1.80e-03 -4.75e-03 1.21e-02 6.37e-03 -7.89e-03 4.49e-03 9.85e-04
## 564
        9.17e-03 2.44e-02 1.74e-02 -1.18e-02 1.15e-02 4.61e-02 2.69e-03
## 565
        5.16e-03 -3.86e-03 -4.27e-03 -3.90e-05 4.06e-04 6.91e-03 1.54e-03
        6.31e-03 1.49e-02 1.38e-02 -1.52e-02 -1.43e-04 1.07e-02 -6.84e-03
## 566
## 567
        1.48e-03 3.07e-03 8.07e-03 1.40e-02 -1.18e-02 -3.43e-03 -4.19e-05
## 568
        3.08e-03 3.18e-04 -2.17e-03 -9.20e-04 -1.18e-03 -2.49e-03 -1.19e-03
       -8.57e-04 -4.37e-03 -1.19e-03 2.34e-03 4.66e-03 -3.22e-03 -5.98e-03
## 569
## 570
        2.29e-02 -4.40e-03 1.22e-02 -3.33e-03 -2.81e-02 2.56e-02 3.60e-03
        3.18e-03 -2.12e-02 1.38e-02 4.03e-03 -1.13e-02 -2.09e-02 -9.28e-03
## 571
## 572
       -6.44e-05 -1.67e-05 9.36e-05 4.52e-05 -2.80e-06 1.18e-05 3.28e-05
       -1.92e-02 -1.18e-02 1.54e-02 6.24e-04 1.51e-02 1.76e-02 2.71e-02
## 573
## 574
        2.74e-03 1.71e-02
                           1.51e-02 2.33e-02 -3.60e-02 1.13e-02 2.65e-02
## 575
       -1.71e-03 -1.91e-03 1.44e-02 -2.76e-03 -1.16e-02 5.39e-03 1.42e-02
       -2.69e-02 1.58e-03 1.68e-02 1.05e-02 7.86e-03 -4.84e-03 -3.45e-02
## 576
       -5.85e-03 -9.52e-03 5.09e-03 -9.00e-03 1.61e-03 -8.20e-03 -3.97e-03
## 577
       -5.26e-03 1.82e-03 -5.80e-03 -1.50e-02 1.14e-02 -8.04e-03 -7.23e-03
## 578
## 579
       -9.42e-03 1.50e-02 2.38e-02 1.06e-02 -8.33e-03 -2.71e-02 -7.97e-03
## 580
       -9.91e-03 1.64e-03 1.18e-02 -7.67e-03 -8.73e-03 -1.45e-02 -4.70e-03
        3.45e-03 1.01e-04
                           5.95e-03 -6.99e-03 -6.03e-03 4.53e-03 -1.81e-03
## 581
        1.31e-03 1.25e-02 1.89e-02 -6.89e-03 -6.12e-03 4.02e-03 -4.09e-03
## 582
       -2.95e-03 -1.95e-03 4.03e-03 5.23e-04 -4.42e-04 -1.75e-03 -1.56e-03
## 583
       -1.92e-02 1.97e-02 7.64e-03 -4.49e-03 5.10e-03 1.17e-02 -3.07e-03
## 584
## 585
       -1.30e-02 -2.66e-03 1.43e-02 1.99e-02 -3.33e-03 1.80e-03 1.15e-01
## 586
        2.18e-02 -4.28e-04 6.62e-03 -1.81e-02 -3.52e-02 9.87e-04 8.35e-04
## 587
       -3.03e-04 -4.15e-03 -4.04e-03 1.08e-03 -9.15e-03 -1.20e-02 -8.87e-03
        5.75e-03 7.46e-03 3.63e-03 -1.82e-02 -2.01e-02 3.47e-04 6.11e-04
## 588
## 589
       -3.53e-03 4.31e-03 7.19e-03 1.06e-02 -1.35e-02 -5.09e-03 7.57e-04
        1.74e-02 3.06e-03 -3.42e-02 8.91e-03 3.12e-02 -2.83e-03 -1.01e-02
## 590
## 591
        8.08e-04 -4.00e-04 -5.52e-05 -8.35e-04 -4.72e-04 3.81e-04 -3.97e-03
## 592
        3.66e-04 5.32e-04 -3.45e-04 3.42e-04 -5.47e-04 -7.13e-04 -3.44e-04
        2.06e-02 -1.98e-03 3.95e-03 -1.55e-02 -3.09e-02 3.20e-03 -1.28e-02
## 593
        2.10e-02 5.03e-04 -2.25e-02 -3.98e-03 -6.75e-03 -7.03e-03 -2.05e-02
## 594
       -4.99e-03 -1.09e-03 8.48e-03 5.75e-03 -2.03e-02 -1.25e-02 -3.00e-03
## 595
       -3.77e-03 -5.74e-04 5.38e-04 -3.10e-04 -1.90e-03 -3.91e-03 -1.18e-03
## 596
## 597
        2.75e-02 1.60e-02 -7.99e-03 1.13e-02 -1.02e-01 -2.96e-02 2.32e-02
       -3.41e-02 2.69e-02 3.19e-02 -1.79e-02 3.09e-03 -1.23e-02 3.22e-03
## 598
## 599
        2.40e-02 5.98e-03 -2.39e-02 1.32e-02 -1.59e-02 -1.31e-02 -1.53e-02
       -2.47e-02 -2.59e-03 -1.08e-02 -1.38e-02 8.36e-03 2.58e-02 1.59e-03
## 600
## 601
       -5.22e-03 3.20e-03 4.39e-03 2.05e-03 1.96e-03 -2.77e-03 2.19e-03
## 602
        2.31e-02 3.54e-02 -5.92e-02 -1.73e-02 3.17e-02 5.86e-03 1.80e-03
## 603
       -3.37e-03 -7.41e-03 4.13e-03 -3.30e-02 -2.68e-02 -1.49e-02 -9.07e-03
        6.12e-02 3.63e-02 -6.35e-02 -3.91e-02 4.93e-02 3.48e-02 -9.54e-03
## 604
       -2.52e-02 1.48e-02 8.50e-03 -5.20e-02 1.03e-02 6.96e-03 6.19e-03
## 605
## 606
        5.91e-03 -4.31e-02 -1.15e-02 -3.18e-02 3.06e-02 -4.52e-03 -1.52e-02
## 607
       -1.09e-02 -4.34e-02 2.72e-02 -4.09e-02 -2.54e-02 -3.51e-02 -1.73e-02
       -1.69e-02 8.50e-03 1.00e-02 1.25e-02 -5.85e-03 -1.46e-02 2.02e-03
## 608
```

```
3.24e-02 -5.77e-02 -3.33e-02 -3.17e-02  3.64e-02  2.03e-03 -2.27e-02
       -3.45e-02 -1.19e-02 1.70e-02 -3.66e-02 2.23e-02 -2.01e-02 2.29e-03
## 610
       -2.79e-02 -2.20e-02 4.89e-03 -3.75e-02 1.50e-02 1.67e-02 5.29e-03
       -2.72e-03 1.09e-03 -4.79e-03 -3.91e-03 6.85e-03 1.63e-03 5.04e-05
## 612
## 613
        1.43e-02 -1.18e-02 -4.25e-02 -1.33e-02 6.47e-02 -7.24e-03 -2.17e-02
       -1.04e-02 1.12e-02 -2.67e-04 -2.15e-02 -4.76e-03 -1.15e-02 -5.28e-03
## 614
        5.84e-04 3.89e-05 -5.10e-04 -2.53e-04 -2.24e-04 1.52e-04 -5.19e-05
## 615
       -5.53e-02 -4.07e-02 9.66e-03 3.81e-02 5.97e-02 6.21e-02 2.09e-02
## 616
## 617
       -2.64e-02 -3.90e-02 5.16e-03 -1.26e-02 5.77e-04 4.84e-02 1.12e-02
## 618
       -2.28e-02 -2.11e-02 2.70e-02 -7.76e-02 2.87e-03 -3.41e-03 -2.39e-02
## 619
       -2.02e-04 -1.59e-03 -7.48e-04 7.92e-04 -1.64e-03 -4.63e-05 -3.27e-04
       -1.60e-02 5.53e-03 4.73e-03 1.39e-02 6.49e-03 -2.91e-02 -4.23e-03
## 620
## 621
        4.06e-02 -9.16e-02 1.19e-02 -5.04e-02 4.35e-02 4.91e-02 -1.89e-03
## 622
        6.88e-03 -7.21e-03 -8.63e-03 -5.56e-03
                                              1.70e-02 7.83e-03 -1.64e-03
## 623
        8.37e-05 -4.47e-03 -1.96e-03 -7.56e-03 7.01e-03 2.19e-03 -1.19e-03
## 624
       -1.66e-02 -1.78e-02 -2.29e-03 -1.60e-03
                                               2.83e-02 -5.30e-03 -1.64e-02
       -7.64e-03 7.57e-03 2.20e-03 -1.61e-02 6.09e-02 3.23e-02 4.41e-03
## 625
## 626
        2.49e-02 2.55e-02 -4.13e-02 -2.18e-02 5.22e-02 -7.87e-03 -2.28e-02
        7.04e-02 -5.57e-02 -2.25e-02 1.42e-01 -6.00e-02 -5.66e-03 -7.86e-03
## 627
## 628
       -1.34e-02 -4.80e-03 1.13e-02 1.03e-02 8.90e-03 -6.62e-03 2.29e-03
## 629
       -1.33e-02 -7.44e-03 8.33e-03 8.95e-03
                                              1.52e-03 -9.03e-03 5.53e-03
        1.49e-02 -2.15e-02 -3.85e-02 -3.69e-02 4.42e-02 2.33e-02 8.60e-03
## 630
        1.02e-03 -4.28e-03 -1.50e-03 -3.39e-03 4.69e-03 2.08e-03 1.50e-03
## 631
        7.50e-05 4.68e-03 3.02e-03 1.43e-02 6.34e-03 -1.29e-03
## 632
                                                                  4.13e-03
## 633
       -3.18e-03 1.04e-02 -1.44e-02 -3.24e-02 2.71e-02 1.10e-02 3.88e-03
## 634
       -7.05e-04 8.19e-03 -8.94e-04 -1.00e-03 1.13e-02 -1.25e-03 -2.30e-03
## 635
        7.52e-04 -3.44e-04 2.27e-05 -1.48e-03 -8.02e-04 4.61e-04 -8.35e-04
## 636
       -1.03e-02 1.71e-02 -5.18e-04 1.50e-02 -2.13e-02 -8.56e-03 5.88e-04
        2.83e-03 -1.17e-02 -6.52e-03 5.54e-04 -1.90e-03 -9.06e-04 -5.53e-03
## 637
## 638
       -8.77e-03 1.03e-02 -1.28e-02 -8.26e-03 -4.85e-03 -1.15e-02 -1.12e-02
        8.53e-03 3.42e-02 -1.21e-02 -5.02e-03 1.22e-02 1.11e-02 1.00e-02
## 639
## 640
        1.23e-02 9.96e-03 -1.90e-03 1.07e-02 -1.86e-02 -9.56e-03 -7.73e-03
## 641
        1.59e-02 1.10e-02 -1.58e-02 -4.69e-03 1.72e-02 1.33e-02 7.34e-04
       -4.38e-02 1.26e-02 3.23e-02 2.47e-02 3.99e-02 -1.57e-02 1.22e-02
## 642
## 643
       -4.97e-03 -4.25e-02 3.77e-03 -1.02e-02
                                               3.85e-02
                                                        6.05e-03 3.92e-03
        2.93e-03 -2.52e-03 -3.78e-03 -4.53e-03
## 644
                                               1.32e-03 1.30e-03 -1.91e-03
## 645
        1.03e-03 2.56e-02 5.50e-03 -3.30e-03 8.22e-03 4.95e-03 9.14e-03
## 646
        8.45e-04 1.30e-03 -4.46e-03 1.03e-04
                                              1.41e-02 -2.50e-04 -6.45e-04
       -3.45e-02 -2.68e-04 9.80e-03 -3.32e-03 4.92e-03 -1.53e-02 -1.15e-02
## 647
        9.01e-03 -7.08e-03 7.30e-03 -2.54e-03 -1.07e-02 7.13e-04 -5.18e-04
## 648
       -5.45e-03 1.62e-02 5.67e-03 3.01e-02 1.38e-02 -5.62e-03 1.28e-02
## 649
       -7.72e-02 2.28e-02 3.69e-02 -5.26e-02 2.10e-02 -5.95e-03 2.93e-02
## 650
## 651
        2.64e-04 9.90e-05 -4.59e-04 -1.91e-05 -2.88e-04 4.79e-05 -4.43e-04
       -1.21e-03 -1.81e-03 1.12e-03 1.65e-03 1.25e-03 -1.46e-03 5.72e-04
## 652
## 653
        4.52e-03 1.66e-03 -3.33e-03 -5.22e-03 -2.73e-03 1.79e-03 7.37e-04
       -8.90e-03 3.96e-03 1.62e-05 -4.73e-03 8.32e-03 -1.59e-03
## 654
                                                                   2.10e-03
## 655
       -4.78e-03 3.49e-03 5.17e-03 -8.91e-03 6.83e-03 9.80e-04
                                                                  4.48e-03
## 656
        1.23e-02 4.02e-02 -2.58e-02 -3.96e-02 1.70e-02 1.55e-02 5.15e-03
## 657
       -4.29e-03 -6.90e-03 -3.03e-02 -3.61e-02 3.60e-02 2.12e-02 1.92e-02
## 658
       -5.20e-05 -2.07e-02 1.74e-03 -2.54e-02
                                               3.69e-02 -5.78e-03 3.39e-03
        1.18e-03 -1.06e-03 1.56e-03 -1.19e-03
                                              3.46e-03 -3.75e-04 1.78e-03
## 659
## 660
        5.83e-02 8.38e-03 -6.16e-02 -6.83e-02 7.37e-02 1.31e-02 -4.47e-02
## 661
       -1.67e-02 -2.06e-02 2.78e-03 -7.42e-02 2.34e-02 1.05e-02 1.33e-02
       -1.91e-02 1.00e-03 4.44e-04 7.92e-03 -4.28e-04 -1.21e-02 -4.32e-03
```

```
1.95e-03 4.75e-03 -6.03e-03 -7.04e-03 1.03e-02 3.23e-03 1.44e-03
       -1.84e-02 -8.12e-03 1.65e-02 3.29e-02 7.89e-03 -2.65e-02 -3.27e-03
## 664
                           2.13e-04 2.52e-04 2.68e-04 2.32e-04 2.55e-04
## 665
        1.64e-04
                 3.52e-04
        2.29e-02 1.74e-02 1.20e-02 8.14e-02 -8.69e-02 -3.20e-02 -1.47e-02
## 666
## 667
        1.67e-03
                 1.92e-03 -3.93e-04 1.28e-03 -2.16e-03 7.03e-04 -2.00e-04
       -1.35e-04 -3.55e-04 6.43e-04 4.39e-04 -1.17e-03 -3.86e-04 -1.98e-04
## 668
        2.87e-03 5.80e-04 -2.53e-03 -4.67e-04 4.80e-03 1.56e-03 4.90e-03
## 669
        2.04e-02 -6.68e-02 -8.45e-03 3.54e-02 -2.04e-02 2.90e-03 -2.27e-02
## 670
## 671
       -5.48e-03 -8.24e-03 3.92e-03 -4.96e-03 -1.76e-02 -8.16e-04 -2.27e-03
## 672
       -6.05e-03 8.37e-03 1.82e-02 2.11e-02 1.23e-02 -8.50e-03 1.07e-02
## 673
       -1.20e-03 8.44e-04 5.18e-04 -1.93e-03 2.06e-03 -1.02e-04 2.22e-05
        2.90e-02 -2.29e-02 -3.13e-02 1.10e-02 -1.19e-02 1.70e-02 5.68e-03
## 674
## 675
        3.55e-03 -4.89e-03 -9.11e-03 -1.51e-02 1.51e-02 1.04e-02 1.95e-03
## 676
       -4.10e-03 2.52e-03 8.32e-04 3.91e-03
                                              1.38e-03 -2.86e-03 -1.64e-03
       -3.10e-03 -7.96e-04 4.14e-05 2.90e-03 6.98e-03 -4.87e-03 1.12e-03
## 677
## 678
       -5.47e-03 -5.40e-03 -5.50e-04 7.11e-03
                                               1.19e-02 -2.22e-03
                                                                  4.61e-03
       -2.20e-04 1.30e-04 3.71e-03 -1.11e-03
## 679
                                               7.17e-04 4.34e-05
                                                                  2.46e-03
## 680
       -2.14e-02 1.98e-03 7.56e-03 3.46e-03
                                               3.58e-02 -2.40e-02
       -1.25e-02 1.11e-02 4.31e-03 -7.66e-03
                                               1.24e-02 -2.30e-03 3.99e-03
## 681
## 682
       -2.04e-04 -4.45e-03 -4.96e-04 -2.96e-03
                                               3.03e-03 2.14e-03 -1.61e-03
## 683
       -1.16e-03 7.65e-04 -4.43e-03 -1.42e-02 1.09e-02 1.57e-03 -5.34e-04
       -5.13e-03 1.27e-02 1.12e-02 1.91e-03 -6.80e-03 4.05e-03
## 684
        6.73e-03 6.41e-05 -3.24e-03 6.92e-03 -2.93e-03 5.44e-04 -1.10e-03
## 685
       -1.70e-03 -1.08e-02 2.69e-03 -1.57e-03 -5.40e-03 -2.60e-03 -1.71e-03
## 686
## 687
        7.15e-03 -1.02e-02 -3.68e-03 -5.27e-03 -1.88e-02 -4.79e-03 -8.86e-03
## 688
       -4.19e-04 -1.31e-03 1.62e-05 -1.91e-04 9.53e-05 -8.72e-04 -1.85e-03
       -3.29e-03 1.51e-03 4.04e-03 3.69e-03 -1.31e-04 -1.03e-03 2.09e-03
## 689
## 690
       -1.08e-02 -1.29e-02 -2.93e-03 1.50e-02 -2.95e-02 -2.09e-02 -1.24e-02
        2.39e-03 -2.45e-03 -1.73e-03 -3.80e-03 -3.10e-03 1.66e-03 -1.71e-03
## 691
## 692
       -1.05e-02 -3.46e-03 1.52e-02 2.24e-02 -2.53e-02 -6.90e-03 -3.85e-03
## 693
        9.56e-03 2.02e-02 8.29e-03 3.30e-02 -2.52e-02 -8.25e-03 -2.44e-03
## 694
        2.17e-03 6.85e-03 -2.39e-03 -2.51e-03 -3.64e-03 8.57e-04 5.57e-04
## 695
        6.77e-03 1.17e-03 -1.45e-02 -1.61e-02 2.36e-03 -5.30e-03 -5.98e-03
        8.47e-05 -7.84e-03 -6.20e-03 -1.15e-03 -5.47e-03 -9.24e-03 -1.40e-02
## 696
       -6.68e-03 3.09e-03 1.89e-03 3.02e-03 2.98e-03 -5.78e-03 1.56e-03
## 697
        1.05e-02 2.57e-03 -7.23e-04 -2.93e-03 -9.18e-03 -2.47e-03 3.18e-04
## 698
## 699
       -1.46e-02 -1.14e-02 2.05e-02 2.25e-02 2.01e-02 2.00e-02 3.63e-03
       -2.57e-03 -7.36e-03 1.75e-02 -4.83e-03 -4.47e-03 2.00e-02 7.19e-03
## 700
       -1.80e-03 4.86e-03 -1.76e-03 -4.90e-03 8.14e-04 2.59e-03 1.79e-04
## 701
       -8.26e-03 -1.12e-02 1.46e-02 -4.93e-04 -7.61e-03 -3.76e-03 -1.74e-03
## 702
        3.44e-03 -1.24e-03 -1.64e-03 -3.35e-03 -5.70e-04 6.87e-03 2.09e-03
## 703
       -1.16e-02 1.62e-02 1.50e-02 2.74e-03 -3.16e-03 2.45e-02 1.38e-02
## 704
## 705
       -6.72e-04 2.06e-04 4.14e-04 2.34e-04 1.22e-03 3.29e-04 -3.80e-04
       -1.35e-02 -2.81e-03 1.39e-02 -1.35e-03 6.55e-03 -6.03e-03 -8.43e-03
## 706
## 707
       -4.77e-03 3.70e-03 1.74e-03 6.97e-03 1.19e-02 -3.55e-04 -3.24e-03
       -2.16e-02 9.28e-03
                            2.16e-02 4.87e-03 2.10e-03 4.59e-03 4.98e-03
## 708
## 709
       -1.27e-04 1.95e-03 4.71e-04 7.92e-04 1.46e-03 4.30e-03 1.30e-03
## 710
        6.66e-03 4.06e-03 -4.37e-03 -2.26e-03 -3.63e-03 7.66e-03 4.88e-03
## 711
        1.97e-03 -1.56e-03 -2.45e-03 6.63e-05 -2.43e-04 -1.82e-03 -7.54e-04
       -1.91e-03 -8.18e-04 1.03e-03 -2.69e-04 -1.11e-04 2.08e-03 8.72e-04
## 712
       -1.36e-02 7.25e-03 1.37e-02 2.30e-03 4.64e-03 2.71e-02 1.19e-02
## 713
## 714
       -2.07e-03 -4.14e-04 5.03e-04 -4.73e-04 3.52e-03 -9.74e-04 -5.08e-04
## 715
        7.21e-03 -4.16e-04 -5.50e-03 -5.24e-03 -1.65e-02 -8.84e-03 -3.56e-03
## 716 -1.30e-02 7.49e-03 8.94e-03 1.92e-03 7.09e-03 1.21e-02 3.28e-03
```

```
1.62e-02 3.77e-03 -1.57e-02 2.23e-04 8.01e-03 2.85e-02 1.09e-02
                 5.02e-04 9.26e-03 -3.23e-03 7.23e-03
       -9.89e-03
## 718
                                                        6.99e-03 -4.13e-03
                                                        7.09e-03 5.79e-03
## 719
       -2.57e-02
                 5.97e-03 1.99e-02 7.63e-03 4.50e-03
## 720
       -3.35e-03
                 8.44e-03 3.82e-03 -3.17e-03 -1.30e-03 5.77e-03
                                                                  2.28e-03
## 721
       -2.81e-02
                  3.61e-03
                            3.49e-02 5.98e-03 8.10e-04
                                                        9.81e-03
       -1.80e-02 2.78e-02 1.17e-02 2.86e-03 6.83e-03 9.69e-03 1.06e-03
## 722
        5.34e-04 1.15e-04 -4.11e-04 -3.07e-04 -8.45e-04 -6.03e-04 -1.80e-04
## 723
       -1.61e-04 1.52e-04 1.90e-04 1.17e-04 1.34e-04 4.58e-05 -4.46e-05
## 724
## 725
       -2.66e-02 -1.12e-02 2.79e-02 4.41e-03 -6.79e-03 1.18e-02 9.48e-03
## 726
       -1.18e-05 1.50e-04 2.42e-04 -1.72e-04 -2.11e-04 1.61e-04
                                                                  4.34e-05
## 727
       -1.12e-01 -3.35e-02 1.43e-01 -2.39e-03 -6.07e-02
                                                        2.22e-03 2.87e-02
        5.11e-04 2.87e-04 -3.00e-03 -3.56e-03 1.55e-03 4.04e-04 -3.93e-04
## 728
## 729
       -1.68e-03 1.59e-04 2.58e-03 2.90e-03 -3.06e-03 -4.91e-03 -1.03e-03
## 730
       -8.51e-03 1.11e-02 7.97e-03 -5.15e-04 -3.80e-03 5.40e-03 7.89e-03
       -1.32e-04 -1.04e-02 -5.71e-04 -2.91e-03 1.10e-03 6.42e-03 -3.15e-03
## 731
## 732
        1.82e-02 -4.11e-03 -4.20e-03 -7.02e-03 -1.03e-02
                                                        1.09e-03 -3.78e-03
       -6.96e-03 -1.73e-03 4.22e-03 1.93e-03 6.96e-03 5.33e-03 1.13e-03
## 733
## 734
       -2.62e-03 -7.58e-03 -9.60e-03 -5.18e-03 2.87e-02
                                                        1.82e-02 9.74e-04
       -6.49e-03 1.25e-02 7.54e-03 -2.38e-03 -3.25e-03 6.52e-03 4.05e-03
## 735
## 736
       -1.41e-04 -4.24e-04 7.53e-04 2.01e-04 -3.75e-04 -1.30e-03 -4.94e-04
## 737
       -1.54e-02 2.31e-02 2.28e-02 5.42e-03 -1.49e-02 7.07e-03 6.42e-03
        2.87e-03 1.97e-02 -8.46e-03 -9.41e-03 9.41e-03 9.49e-03 -4.32e-03
## 738
        6.06e-04 -1.91e-03 -1.63e-03 -5.15e-03 1.26e-03 6.71e-04 -2.70e-03
## 739
       -1.07e-02 1.97e-04 -2.65e-02 -1.19e-02 4.79e-02 3.20e-02 9.43e-03
## 740
## 741
       -9.81e-03 2.58e-03 6.23e-03 -3.02e-04 7.16e-03 2.75e-03 2.42e-03
## 742
        5.41e-03 -7.46e-03 -1.39e-02 -3.78e-02 2.16e-02 -1.32e-02 -1.02e-02
## 743
        1.97e-02 1.90e-02 -6.83e-03 -1.42e-02 -5.13e-03 1.36e-02 6.56e-03
        2.46e-02 -6.05e-03 -2.56e-02 5.19e-03 3.47e-03 -4.18e-03 -4.50e-03
## 744
       -2.01e-02 -2.52e-03 1.51e-02 1.61e-03 1.77e-02 9.47e-03 1.75e-03
## 745
## 746
       -3.90e-02 1.40e-02 4.31e-02 4.20e-03 -2.58e-03 7.30e-03 9.49e-03
       -7.21e-03 -1.30e-02 9.52e-03 7.55e-03 2.76e-03 -2.17e-02 -9.05e-03
## 747
## 748
        3.21e-02 -4.16e-02 -1.94e-02 -3.17e-02 4.75e-02 9.81e-03 -1.83e-02
## 749
       -6.90e-02 1.97e-02 5.62e-02 2.44e-02 4.36e-02 3.03e-02 9.36e-03
        4.74e-03 -2.40e-03 3.66e-03 -8.05e-03 9.32e-04 1.14e-02 1.23e-03
## 750
## 751
        1.74e-02 - 1.64e-02 - 1.46e-02  5.72e-04 - 9.79e-03 - 1.55e-02 - 1.87e-03
       -5.03e-03 2.34e-03 2.86e-03 3.29e-03 2.58e-03 1.80e-03 9.91e-04
## 752
## 753
       -2.40e-04 2.92e-04 -8.07e-05 -2.49e-04 2.14e-04 -5.69e-05 -1.36e-04
        2.02e-03 -6.34e-04 1.42e-04 -7.87e-03 -5.36e-04 -1.49e-03 1.27e-03
## 754
       -3.01e-03 3.85e-02 -2.52e-02 -3.92e-02 4.34e-02 6.63e-02 1.60e-02
## 755
       -3.27e-02 9.91e-03 3.44e-02 1.50e-02 1.18e-02 -3.16e-03 -6.07e-03
## 756
       -2.76e-03 -7.28e-03 -4.81e-04 -1.40e-03 1.64e-03 -4.45e-03 -2.92e-03
## 757
        3.30e-03 -2.50e-03 4.96e-03 -2.10e-03 -6.79e-03 -2.72e-02 -6.67e-03
## 758
## 759
       -3.09e-02 2.61e-02 2.65e-02 -4.71e-03 -2.46e-02 -8.77e-04 -2.67e-03
       -4.27e-02 3.57e-02 2.45e-02 1.66e-02 2.35e-02 7.41e-03 1.35e-02
## 760
## 761
       -4.77e-04 2.66e-04 5.97e-04 5.21e-04 7.00e-05 5.21e-04 1.27e-04
        4.32e-04 -4.02e-03 3.79e-03 4.00e-03 2.27e-05 3.48e-03 2.33e-03
## 762
## 763
       -1.13e-02 4.63e-03 -3.90e-03 -1.60e-02 1.81e-02 -8.00e-03 -6.31e-03
## 764
       -1.41e-02 -2.58e-03 -1.26e-03 -2.46e-02 1.80e-02 1.33e-02 8.89e-03
## 765
       -5.17e-03 -3.16e-03 3.71e-03 1.16e-02 2.44e-02 1.32e-02 3.59e-05
## 766
       -1.80e-02 1.69e-02 2.05e-02 6.98e-04 7.40e-04
                                                        1.03e-02 5.40e-03
        1.08e-02 -9.31e-03 1.01e-02 -7.17e-03 -2.10e-02 -2.14e-02 -1.36e-02
## 767
## 768
       -1.61e-03 -6.56e-04 3.81e-03 -1.24e-02 -1.33e-03 2.40e-02 3.38e-03
## 769
        1.57e-03 -1.36e-04 7.10e-04 4.54e-04 -1.15e-03 1.72e-03 1.48e-04
## 770 -2.64e-03 -1.36e-03 -3.38e-04 -2.64e-03 3.95e-03 3.63e-03 1.35e-03
```

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-1.50e-02 -1.48e-02 3.16e-02 -7.41e-03 3.15e-02 1.16e-02 -1.83e-02
       -1.15e-02 4.48e-04 1.14e-02 -7.62e-04 4.84e-03 6.03e-03 2.76e-03
## 772
        1.65e-02 9.28e-05 -1.32e-03 6.23e-03 -1.01e-03 2.02e-02 -5.39e-03
       -1.81e-03 1.56e-03 -3.84e-03 -2.64e-03 2.09e-03 -2.94e-03 -1.57e-03
## 774
## 775
       -1.31e-02 -3.98e-02 7.77e-02 -2.00e-02 -1.22e-01 -5.53e-02 8.43e-03
        2.45e-02 -3.15e-03 -1.82e-02 -3.83e-02 -9.08e-03 3.37e-03 -3.87e-03
## 776
       -2.14e-02 -2.76e-02 9.80e-03 4.92e-03 -2.86e-03 1.23e-03 5.29e-03
       -1.95e-04 6.67e-03 1.05e-02 3.17e-02 -1.00e-02 -5.04e-03 1.27e-02
## 778
## 779
        2.08e-03 -1.70e-02 1.07e-04 1.91e-03 -3.63e-03 -6.71e-03 -2.20e-03
## 780
       -7.04e-02 1.99e-02 5.64e-02 3.20e-02 -8.41e-02 -7.90e-02 -1.88e-02
## 781
        3.26e-03 -2.22e-03 -6.40e-04 -3.51e-03 -5.79e-04 2.60e-03 -7.35e-04
       -1.73e-03 1.57e-03 2.79e-03 8.05e-04 -1.28e-04 1.82e-03 1.76e-03
## 782
## 783
       -3.88e-02 2.83e-02 -1.78e-02 4.32e-02 7.70e-02 -2.99e-02 -1.53e-02
## 784
       -1.30e-02 1.13e-02 4.22e-03 -4.64e-02 2.00e-02 1.03e-02 -7.18e-03
        5.27e-03 -8.50e-04 -9.96e-03 -1.21e-03 1.20e-02 -2.88e-04 -4.74e-03
## 785
        9.66e-03 1.57e-02 1.46e-02 1.84e-02 -6.04e-02 7.79e-03 1.17e-02
## 786
       -2.52e-03 2.23e-02 -1.92e-02 1.05e-02 1.34e-02 -1.20e-02 -8.85e-06
## 787
## 788
       -3.07e-04 -3.14e-04 5.76e-04 1.06e-03 -4.40e-04 5.44e-04 1.96e-04
       -4.97e-03 2.93e-03 1.13e-03 4.82e-03 8.69e-04 -3.87e-03 -3.00e-04
## 789
## 790
        9.72e-03 -2.97e-03 -3.43e-03 1.49e-02 1.42e-03 -5.51e-03 -2.72e-03
## 791
        2.30e-02 -9.38e-03 -9.02e-03 2.59e-02 8.79e-03 2.51e-03 1.30e-03
## 792
        1.96e-03 -1.27e-03 6.56e-04 -1.55e-03 -1.29e-03 -2.12e-03 -9.44e-04
        1.31e-02 2.16e-03 -1.12e-02 -4.86e-03 -3.82e-03 -6.81e-03 1.36e-02
## 793
       -1.17e-03 6.71e-03 -2.90e-02 1.73e-02 1.66e-02 -1.47e-02 -1.46e-02
## 794
## 795
        1.25e-02 -3.22e-03 -6.80e-03 2.21e-03 -2.07e-03 4.26e-03 -2.60e-03
## 796
       -4.62e-02 3.19e-03 3.52e-02 5.57e-02 -7.47e-02 -9.36e-02 -1.46e-02
## 797
        1.06e-02 1.64e-03 9.80e-03 3.02e-03 -1.96e-02 9.59e-04 -4.26e-04
## 798
        5.07e-03 1.04e-02 -2.39e-03 5.48e-03 -1.03e-02 -1.11e-02 -4.69e-03
## 799
       -8.38e-03 -6.37e-03 7.52e-03 1.20e-02 7.97e-03 5.04e-03 4.40e-03
## 800
        9.95e-04 1.21e-03 1.63e-03 1.02e-05 -3.83e-03 -3.62e-03 -1.07e-03
## 801
        7.22e-04 6.58e-04 -2.37e-04 -6.73e-04 -3.25e-04 -4.59e-04 -2.50e-04
## 802
       -1.08e-03 -5.44e-04 -3.83e-05 5.71e-04 4.09e-05 -7.20e-04 -1.68e-04
## 803
        9.33e-02 -6.23e-02 -3.25e-02 1.93e-02 8.07e-04 2.83e-02 4.65e-03
        1.48e-02 1.41e-02 -1.13e-02 -9.50e-03 -1.05e-02 -5.15e-03 6.64e-05
## 804
## 805
        2.24e-02 -2.49e-03 -3.21e-02 -1.39e-02 3.06e-04 5.16e-02 1.04e-02
       -1.50e-03 -7.92e-04 4.11e-04 3.37e-04 6.31e-04 2.69e-04 3.67e-05
## 806
## 807
        8.18e-04 -3.23e-03 -3.11e-03 -2.28e-03 2.62e-03 5.35e-03 1.68e-03
## 808
       -3.66e-03 -1.01e-03 1.12e-03 1.60e-03 2.79e-03 5.27e-03 1.20e-03
        1.32e-03 -4.51e-04 -1.71e-03 1.39e-03 -2.87e-04 1.03e-03 2.72e-06
## 809
       -4.37e-04 1.17e-03 5.24e-04 5.24e-04 -9.83e-04 -1.43e-03 -3.89e-04
## 810
        3.33e-03 -1.73e-04 -6.32e-03 -1.09e-02 -9.81e-04 6.87e-04 -2.50e-03
## 811
       -8.67e-02 -4.88e-02 3.07e-02 4.58e-02 2.92e-02 -6.32e-03 3.64e-03
## 812
## 813
       -1.84e-02 1.11e-02 2.44e-02 -1.09e-02 -5.99e-03 1.33e-03 -2.00e-04
        1.02e-04 2.33e-03 -5.13e-04 -1.79e-03 3.32e-04 -1.52e-03 9.15e-04
## 814
## 815
       -8.84e-04 1.79e-02 4.10e-04 -3.75e-04 -1.05e-02 -1.81e-02 -8.49e-03
       -8.30e-03 7.48e-03 1.17e-02 -1.09e-03 -1.11e-02 -5.75e-03 -2.51e-05
## 816
## 817
        1.28e-02 4.85e-03 -8.10e-03 7.97e-04 -7.28e-03 -4.16e-03 5.13e-03
       -1.85e-03 2.16e-03 2.39e-03 -3.75e-03 -7.69e-04 1.57e-03 -1.07e-04
## 818
## 819
        2.19e-03 7.28e-04 -1.35e-03 -1.20e-03 -8.70e-04 -6.38e-04 -7.31e-04
## 820
        1.37e-03 4.58e-03 3.04e-03 -9.15e-03 -6.31e-03 -3.11e-03 -2.82e-03
       -8.66e-04 5.02e-03 2.41e-03 -1.46e-02 -1.04e-02 3.63e-03 3.14e-03
## 821
## 822
        1.70e-02 -1.01e-02 4.88e-04 -2.44e-02 -6.35e-04 -3.44e-03 -7.94e-03
## 823
       -5.56e-04 -5.80e-04 7.69e-04 9.84e-04 -1.37e-04 -3.32e-04 2.19e-04
## 824 -5.22e-02 3.10e-02 -1.69e-02 1.48e-02 4.05e-03 2.20e-02 4.42e-05
```

```
-4.72e-03 -3.52e-03 -1.08e-02 3.56e-03 3.80e-02 2.89e-02 4.82e-03
## 826
       -6.86e-03 5.02e-03 -9.27e-03 1.10e-02 4.18e-03 1.24e-02 9.75e-03
       -1.30e-04 3.11e-05 -9.41e-05 -6.99e-05 1.64e-04 2.22e-04
## 828
        5.45e-03 3.18e-03 2.68e-03 -1.74e-03 -6.05e-03 -5.03e-03 -2.21e-03
## 829
       -9.80e-04 1.82e-03
                            4.51e-03 -1.38e-04 -9.65e-03 -8.72e-03
       -2.78e-03 -7.60e-03 1.40e-03 -6.66e-03 4.50e-03 1.14e-02 4.46e-03
## 830
## 831
       -3.51e-03 -2.68e-03 6.53e-04 2.19e-03 2.43e-03 3.66e-03
## 832
       -2.88e-02 6.39e-03 1.59e-02 8.31e-03 1.73e-02
                                                        1.68e-02
                                                                  1.20e-02
## 833
       -8.69e-03 -4.95e-03 -2.04e-03 -3.16e-04 4.41e-03
                                                        6.30e-03
                                                                   9.39e-04
## 834
        4.15e-04 -2.08e-03 -6.51e-04 -8.76e-04 -6.06e-05
                                                        1.55e-03
                                                                  9.32e-06
## 835
        2.22e-02 2.76e-02 -3.14e-02 -3.84e-02 3.69e-02 1.23e-02 2.59e-03
        8.82e-03 2.64e-03 -1.33e-02 -7.73e-03 1.88e-03 -1.10e-02 -7.02e-03
## 836
## 837
        2.21e-02 4.63e-03 -9.41e-03 7.05e-03 1.11e-02 -2.61e-02 -1.32e-02
## 838
        4.00e-03 5.06e-03 -8.48e-03 -1.47e-04 4.65e-03 -2.24e-02 -1.25e-02
## 839
       -3.39e-03 4.64e-05 8.93e-03 2.27e-03 -8.86e-03 -4.35e-02 -1.71e-02
## 840
        6.10e-03 -9.29e-03 -9.31e-03 6.20e-03 1.98e-02 7.67e-03 -7.85e-04
        6.06e-04 4.66e-03 9.57e-04 -2.10e-03 -4.04e-03 -6.55e-03 -1.77e-03
## 841
## 842
        1.38e-03 6.80e-04 -9.56e-04 -3.00e-04 9.48e-04 -8.41e-04 1.23e-05
       -7.86e-04 -3.50e-03 3.78e-03 1.57e-03 -1.68e-03 1.91e-03 4.97e-04
## 843
## 844
        8.96e-03 8.13e-03
                           3.53e-03 -5.61e-03 2.00e-03 -6.89e-03 -6.34e-03
## 845
       -1.92e-01 4.36e-02 1.11e-01 -3.22e-02 -1.84e-02 3.22e-02 1.58e-02
        1.54e-03 1.18e-02 9.74e-03 -1.25e-02 -2.30e-02 -7.16e-03 1.09e-03
## 846
       -1.91e-02 8.48e-03 3.13e-02 8.56e-03 -2.37e-02 -2.51e-02 -3.05e-03
## 847
## 848
        1.55e-03 -3.10e-02 1.56e-03 2.58e-02 5.47e-03 -1.22e-02 -1.55e-02
## 849
        3.10e-03 7.89e-03 -9.36e-03 -4.34e-02 2.11e-03 -6.41e-03 -3.49e-03
## 850
        7.53e-04 -6.21e-03 1.00e-03 2.20e-03 -3.45e-03 -7.03e-04 -3.12e-04
        3.37e-03 3.41e-03 1.53e-03 5.47e-04 -6.47e-03 -4.66e-03 -1.45e-03
## 851
## 852
        8.71e-03 -1.90e-02 -1.56e-02 5.99e-03 2.30e-02 2.80e-02 1.04e-02
       -3.36e-02 -6.62e-03 2.67e-02 8.24e-03 -4.44e-03 -1.25e-02 -2.53e-03
## 853
## 854
        3.58e-02 8.40e-03 -6.16e-02 -4.16e-02 1.84e-02 7.82e-02 2.62e-02
       -1.70e-02 2.07e-02 3.22e-02 8.47e-03 -2.98e-02 -1.96e-02 1.54e-03
## 855
## 856
        2.04e-03 9.97e-04 -1.78e-03 -1.15e-03 1.91e-04 3.95e-03 -6.03e-04
## 857
       -3.42e-04 8.20e-04 1.44e-03 1.87e-03 -5.55e-04 6.21e-04 4.02e-04
        2.25e-03 8.17e-04 -2.31e-03 2.24e-04 -2.94e-04 1.15e-03 -6.28e-05
## 858
## 859
       -4.94e-04 7.57e-04 -6.93e-04 -2.94e-03 -1.08e-03 -1.30e-03 3.79e-04
       -1.53e-02 -1.14e-02 1.14e-02 -1.73e-02 -4.89e-03 -5.23e-03 1.47e-03
## 860
## 861
        4.55e-03 2.94e-03 -7.55e-03 4.01e-03 4.56e-03 1.00e-02 -9.14e-04
       -9.22e-03 -1.15e-02 9.77e-03 -8.96e-03 8.50e-03 -1.24e-02 -4.46e-03
## 862
       -4.13e-04 2.71e-05 3.69e-04 -6.33e-04 4.21e-04 -2.21e-04 -2.21e-04
## 863
        1.48e-04 5.90e-04 -3.70e-04 9.91e-04 8.42e-04 1.14e-03 2.76e-04
## 864
        1.04e-04 2.78e-04 9.12e-05 1.14e-04 2.53e-06 2.27e-04 1.41e-05
## 865
        2.01e-04 -3.23e-04 -2.84e-04 -9.67e-04 -3.15e-04 -4.80e-04 -2.85e-04
## 866
## 867
       -5.03e-04 6.33e-04 2.41e-03 1.20e-04 4.03e-05 -1.49e-03 4.38e-06
        5.55e-03 1.69e-03 -3.35e-03 9.01e-03 1.00e-02 1.46e-02 1.33e-03
## 868
## 869
       -1.33e-03 -3.39e-03 1.69e-03 -3.23e-03 -7.11e-04 -4.02e-03 -7.67e-04
        6.91e-03 2.05e-02 -2.41e-03 2.67e-02 9.39e-03 1.40e-02 2.49e-03
## 870
## 871
       -1.93e-03 -4.26e-03 4.07e-03 -1.95e-03 1.75e-04 -2.30e-03 3.03e-04
## 872
        1.50e-02 - 1.36e-02 - 9.43e-03 - 1.79e-05 - 1.44e-02 - 1.25e-02  4.43e-03
## 873
        4.87e-03 9.97e-04 -1.86e-02 -5.95e-03 3.51e-03 -1.38e-02 -2.05e-03
        3.49e-03 2.41e-04 -5.73e-03 2.12e-04
## 874
                                               3.29e-05 -5.14e-03 2.73e-03
       -2.94e-03 -5.65e-03 -1.36e-02 -2.81e-03
## 875
                                               1.23e-02 -1.30e-02 -8.28e-03
## 876
       -6.59e-04 2.33e-06 9.50e-06 -3.58e-04 4.03e-04 -2.19e-04 -3.72e-04
## 877
       -4.45e-03 1.32e-05 -7.92e-03 2.17e-03 3.14e-03 -1.23e-02 -6.07e-03
## 878 -5.80e-03 5.06e-03 -1.13e-02 -6.61e-03 9.85e-03 -1.21e-03 -4.05e-03
```

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5.99e-03 -3.00e-02 -3.98e-02 -8.47e-03 -7.25e-04 -9.88e-02 -2.55e-02
        2.77e-04-1.26e-05-2.79e-05-2.90e-04-2.02e-04-3.75e-04-2.21e-04
## 880
## 881
        8.72e-04 -1.10e-03 -3.25e-03 -4.93e-04 1.30e-03 -2.36e-03 8.08e-04
## 882
       -1.50e-03 4.92e-03 2.38e-03 -3.11e-03 -4.41e-03 -9.92e-04 2.16e-03
## 883
       -3.29e-04 1.91e-04 -3.97e-04 -1.37e-04 2.13e-04 -6.13e-04 -8.58e-05
        3.93e-03 2.19e-03 -1.38e-03 -3.68e-03 2.33e-03 8.72e-03 -2.59e-02
## 884
       -1.03e-03 -1.00e-03 -2.91e-04 1.06e-02 8.77e-04 -6.45e-03 -4.90e-03
## 885
       -1.70e-03 6.20e-03 5.98e-03 -8.96e-03 5.42e-04 1.20e-02 -3.81e-02
## 886
## 887
        4.61e-02 -2.13e-02 -5.97e-02 9.78e-03 1.95e-03 -8.59e-02 -3.16e-02
## 888
       -1.37e-02 -8.04e-03 -3.07e-03 4.67e-03 4.27e-03 -1.89e-02 -8.92e-03
## 889
       -8.27e-04 -1.73e-02 -1.09e-02 -1.70e-02 -3.30e-03 -3.04e-02 -6.44e-03
       -1.62e-02 1.14e-02 3.46e-02 1.18e-02 -2.50e-02 -3.23e-02 -1.38e-02
## 890
## 891
        2.55e-03 6.21e-04 4.52e-03 -1.49e-02 4.55e-04 7.93e-03 4.02e-04
## 892
       -1.23e-03 -1.22e-03 -1.28e-03 -1.34e-03 2.25e-03 1.35e-04 -2.82e-04
       -2.20e-03 1.57e-02 2.18e-03 -3.36e-03 6.17e-04 -1.08e-02 -1.39e-04
## 893
       -1.10e-04 1.19e-04 -1.79e-04 2.42e-04 2.22e-04 -9.90e-05 -2.74e-06
## 894
        1.99e-02 -6.75e-03 -2.01e-02 -7.02e-03 7.58e-03 -3.83e-02 -2.07e-02
## 895
## 896
        7.83e-03 -8.12e-03 1.24e-02 -2.13e-02 -7.12e-03 6.31e-04 1.70e-03
        6.53e-03 8.00e-03 8.97e-03 -9.74e-03 -1.58e-02 -1.25e-02 2.68e-03
## 897
## 898
        2.71e-02 3.89e-03 -1.91e-02 -2.47e-02 -1.64e-02 9.54e-03 -9.91e-03
## 899
       -7.40e-03 3.74e-04 8.15e-04 -8.40e-04 5.33e-03 4.92e-03 8.41e-04
       -3.65e-02 3.22e-02 -8.86e-02 5.60e-02 5.78e-02 -5.57e-02 -2.62e-02
## 900
       -1.04e-02 1.14e-03 5.76e-03 6.46e-03 3.11e-03 -3.09e-03 1.88e-03
## 901
        7.66e-02 3.38e-02 -3.54e-02 1.77e-02 -2.88e-02 -1.31e-02 -2.25e-02
## 902
## 903
        1.42e-02 -1.14e-02 3.63e-03 -1.80e-02 -1.13e-02 8.44e-03 2.63e-03
## 904
       -1.03e-02 -6.06e-03 1.02e-02 6.97e-03 1.52e-03 -6.58e-03 1.71e-03
       -2.03e-02 2.76e-02 -6.28e-02 5.59e-02 1.95e-02 -7.79e-02 -4.08e-02
## 905
        4.03e-04 -7.84e-04 -3.47e-04 -2.39e-04 1.67e-04 -2.17e-04 -3.37e-04
## 906
        6.65e-02 -2.87e-03 -2.73e-02 -2.98e-02 -3.42e-02 6.73e-03 -8.33e-03
## 907
## 908
        2.77e-02 -1.18e-02 -2.79e-02 -1.02e-02 1.81e-02 2.60e-05 -8.15e-03
       -3.06e-04 1.44e-04 1.21e-04 -3.43e-03 -1.31e-03 5.80e-04 -4.08e-05
## 909
## 910
       -7.06e-03 -8.04e-04 5.44e-03 3.57e-03 -3.01e-03 -1.07e-03 1.27e-03
## 911
        1.04e-02 4.67e-03 -1.03e-04 -2.53e-03 -8.98e-03 4.39e-03 2.99e-03
       -1.30e-01 8.70e-02 -2.45e-02 2.19e-01 -3.10e-02 -2.03e-01 -6.37e-02
## 912
## 913
       -9.69e-02 8.09e-02 2.07e-02 8.98e-02 -3.14e-02 -1.36e-01 1.12e-03
        1.57e-03 -6.76e-04 -2.21e-03 -5.46e-03 -9.20e-04 1.16e-03 -1.27e-03
## 914
## 915
        2.39e-02 2.32e-02 -1.08e-02 3.86e-02 -9.47e-03 6.19e-03 4.86e-03
        1.36e-02 4.54e-02 -4.06e-02 8.62e-02 -5.34e-03 6.96e-03 1.27e-02
## 916
       -4.28e-03
                  3.99e-03
                            2.27e-04
                                     1.27e-02 -4.19e-03 -8.29e-03 5.42e-03
## 917
        1.10e-02 6.16e-03 1.19e-02 7.35e-02 -2.09e-03 2.48e-02 1.30e-02
## 918
       -2.40e-03 -7.50e-03 6.77e-03 4.56e-02 4.93e-03 3.98e-03 4.19e-03
## 919
## 920
        6.95e-03 5.63e-02 -1.90e-02 4.28e-02 -9.94e-03 6.33e-03 1.42e-02
## 921
       -7.43e-02 3.47e-02 7.49e-02 5.09e-02 -5.85e-02 -3.41e-02 -4.99e-03
       -5.20e-03 8.37e-04 3.88e-03 2.40e-03 2.42e-04 -3.42e-03 -1.28e-03
## 922
## 923
        4.05e-03
                  1.48e-02 -5.12e-02 7.68e-02 -3.78e-02 -3.05e-02 5.98e-03
                                     4.59e-02 6.49e-03 3.29e-03 1.11e-02
       -8.97e-03
## 924
                 9.01e-03 1.91e-04
## 925
       -6.82e-02 3.48e-02 8.62e-02 4.62e-02 -1.04e-02 -4.72e-02 -7.93e-03
## 926
       -1.29e-03 9.07e-03 -4.60e-03 8.96e-03 5.97e-03 7.31e-03 7.17e-03
## 927
        1.44e-04 1.63e-03 1.27e-03 3.47e-03 -2.54e-03 2.48e-03 1.72e-03
## 928
       -1.45e-03 -2.59e-02 -4.13e-04 -2.06e-02 1.34e-02 -1.10e-02 -1.24e-02
       -1.56e-02 5.12e-03 1.48e-02 2.99e-02 6.58e-04 -5.92e-03 -6.08e-03
## 929
## 930
       -1.47e-02 9.48e-02 -7.53e-02 3.78e-02 4.29e-02 7.07e-02 5.73e-03
## 931
       -1.14e-03 -1.00e-03 2.09e-03 -1.71e-03 1.17e-03 -6.58e-04 -8.09e-04
## 932 -9.40e-03 1.62e-03 6.52e-03 1.83e-02 -1.23e-03 -1.44e-03 4.20e-03
```

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-1.06e-02 -3.15e-04 2.18e-02 2.16e-02 1.24e-02 1.50e-02 -4.37e-04
        1.19e-02 -2.24e-02 2.94e-02 6.87e-02 -2.55e-02 1.58e-03 1.54e-02
## 934
## 935
       -3.18e-02 2.88e-02 3.18e-02 6.19e-02 -1.40e-03 -7.02e-04 1.19e-02
        8.96e-03 1.78e-02 -2.45e-02 7.09e-02 -7.12e-03 1.79e-02 1.45e-02
## 936
## 937
       -4.69e-02 -1.70e-03 5.60e-02 8.10e-02 -8.86e-03 1.55e-04 8.18e-03
       -2.45e-02 8.89e-03 1.42e-02 3.93e-02 -2.51e-02 3.28e-03 1.50e-02
## 938
## 939
       -1.62e-02 5.09e-03 -1.32e-02 -1.21e-02 2.07e-02 1.42e-02 2.07e-03
       -1.18e-02 8.73e-03 1.45e-02 4.02e-02 -6.44e-03 -7.41e-03 1.32e-02
## 940
## 941
        3.13e-03 -5.74e-03 -8.04e-03 4.81e-03 4.20e-03 9.41e-04 -1.30e-03
## 942
        3.53e-03 -2.21e-03 -1.64e-03 -4.00e-03 2.35e-03 -2.48e-03 5.34e-04
## 943
       -2.16e-04 3.36e-05 -1.80e-04 -8.36e-05 1.56e-04 5.69e-04 2.04e-05
       -1.68e-03 5.99e-04 1.33e-03 1.80e-03 2.09e-04 -1.58e-03 -1.71e-04
## 944
## 945
        2.64e-02 -1.41e-02 -2.22e-02 -3.65e-02 -6.56e-03 -1.37e-02 -8.75e-03
## 946
        3.62e-03 -5.53e-03 -1.64e-02 -1.42e-02 1.40e-04 4.44e-03 -1.00e-02
       -2.03e-02 2.90e-02 -6.37e-03 2.48e-02 1.18e-02 -1.23e-02 -9.11e-03
## 947
## 948
        6.64e-04 4.78e-05 -5.01e-04 -1.68e-04 -5.79e-04 6.02e-04 -3.00e-04
        2.73e-04 -2.32e-04 -1.38e-04 -3.63e-04 4.03e-04 -6.71e-05 1.52e-04
## 949
## 950
        3.98e-03 3.28e-03 -3.42e-03 -9.16e-04 4.14e-03 -5.17e-03 -1.59e-03
       -6.24e-05 6.49e-05 -1.27e-04 3.23e-04 4.66e-05 3.69e-04 -6.73e-05
## 951
## 952
       -1.03e-03 3.75e-04 2.44e-03 -1.86e-04 1.11e-03 -2.02e-03 1.66e-03
## 953
       -3.82e-04 -1.73e-03 -3.44e-03 5.77e-03 2.16e-03 5.30e-03 -1.28e-03
        2.24e-03 -5.88e-05 5.05e-03 -8.34e-03 6.18e-03 -6.48e-03 -1.62e-03
## 954
       -6.47e-04 1.46e-02 8.53e-03 1.73e-02 -2.54e-02 -2.70e-02 -6.92e-03
## 955
        2.43e-03 -5.08e-03 -1.71e-03 -1.12e-03 -1.46e-03 -1.80e-03 1.49e-03
## 956
## 957
       -1.64e-02 -2.29e-02 1.78e-02 1.67e-02 -1.43e-02 -1.15e-03 -2.00e-03
## 958
       -1.42e-02 3.71e-02 3.99e-03 6.93e-03 -2.48e-02 -4.77e-02 -1.03e-02
        3.51e-03 -8.19e-03 -3.30e-03 1.26e-02 -3.20e-03 -1.88e-02 -1.03e-02
## 959
## 960
       -2.88e-03 -2.13e-03 2.24e-03 2.19e-03 -1.96e-03 -7.25e-03 -3.29e-03
        9.39e-03 -7.64e-03 -7.58e-03 -2.59e-03 -2.71e-03 4.14e-03 9.47e-03
## 961
       -1.07e-03 -2.19e-03 -1.09e-03 -2.91e-04 -7.38e-04 -1.19e-03 -4.06e-04
## 962
        5.76e-03 -3.13e-03 -6.30e-03 2.90e-03 5.59e-05 2.38e-03 -1.86e-03
## 963
## 964
       -3.03e-02 -1.31e-04 -4.67e-03 -7.72e-03 1.85e-02 1.33e-02 -3.15e-04
## 965
        2.06e-03 1.84e-03 -2.66e-04 -1.66e-03 -2.23e-04 2.54e-03 1.42e-03
        2.75e-03 1.29e-04 -1.12e-02 -2.60e-02 7.44e-03 6.31e-02 2.40e-02
## 966
## 967
        -1.98e-03 -2.37e-02 1.96e-03 6.64e-04 8.61e-03 1.09e-02 2.29e-03
       -9.23e-03 -1.46e-02 1.49e-02 1.04e-02 4.03e-03 -2.16e-02 -4.91e-03
## 968
## 969
        1.63e-04 -1.74e-03 3.43e-04 4.53e-04 -4.55e-04 -1.26e-03 -5.63e-04
## 970
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        1.34e-03 -5.93e-03 3.42e-03 5.27e-03 -7.43e-04 2.77e-03 1.73e-04
## 971
        1.50e-02 1.92e-02 -3.23e-02 6.98e-02 -1.45e-02 -1.14e-01 -4.37e-02
## 972
       -1.22e-04 1.10e-05 -1.85e-04 -1.98e-04 4.69e-04 3.39e-04 7.70e-05
## 973
       -1.37e-03 -4.50e-03 6.34e-03 7.53e-04 -1.15e-03 9.05e-03 9.48e-04
## 974
        5.09e-02 -1.79e-02 -6.79e-02 2.02e-02 1.16e-02 -1.36e-04 -1.75e-02
## 975
        2.10e-03 -6.21e-03 -2.02e-03 3.26e-03 -4.06e-03 1.73e-03 3.55e-04
## 976
## 977
       -9.69e-04 -8.64e-03 -1.32e-02 -1.13e-02 6.37e-03 -1.81e-02 -5.19e-03
       -2.02e-03 4.62e-04 9.43e-04 -1.59e-03 -3.26e-04 2.44e-03 1.53e-03
## 978
## 979
       -2.72e-03 -8.57e-02 7.06e-03 -9.54e-04 1.34e-02 4.41e-02 9.77e-04
## 980
        9.35e-03 -1.61e-02 -2.24e-02 6.28e-03 1.58e-02 -2.91e-02 -1.87e-02
## 981
        4.38e-03 -4.00e-03 -7.03e-03 1.10e-02 -8.08e-04 -2.01e-02 -9.51e-03
       -1.41e-05 5.57e-04 -3.31e-06 -4.90e-04 3.10e-04 5.10e-04 -4.36e-03
## 982
        1.12e-03 -2.45e-02 -1.03e-02 -7.59e-04 4.47e-03 -2.10e-02 -9.06e-03
## 983
## 984
        1.65e-02 3.27e-02 -1.25e-02 2.02e-03 4.05e-03 1.58e-03 9.07e-04
## 985
       -5.16e-03 -3.88e-03 -8.95e-03 -2.14e-03 -3.79e-04 -1.97e-02 -9.84e-03
        2.73e-03 1.08e-03 -5.01e-03 -6.30e-03 1.97e-03 4.05e-03 1.30e-03
## 986
```

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9.91e-03 5.67e-03 -1.98e-02 -7.11e-03 1.97e-03 -8.40e-03 -4.39e-03
        3.86e-02 -1.66e-02 -1.89e-02 5.23e-03 -1.29e-02 1.83e-02 -1.63e-03
## 988
## 989
        4.43e-03 1.96e-02 -1.40e-02 5.24e-03 -1.05e-02 -1.76e-02 -7.55e-03
        1.31e-02 -9.05e-03 -3.80e-03 -1.78e-02 2.04e-03 2.92e-02 6.37e-03
## 990
## 991
        1.43e-02 -4.66e-02 -1.93e-02 1.85e-02 1.18e-02 2.37e-02 1.02e-03
       -4.53e-03 3.75e-03 7.53e-03 3.14e-03 -4.20e-03 1.17e-03 8.03e-04
## 992
        3.79e-02 -1.19e-02 -5.23e-02 -3.28e-02 4.41e-02 7.66e-02 1.78e-02
## 993
        4.75e-03 -4.18e-03 4.55e-04 1.01e-02 -5.05e-03 -1.48e-02 -5.34e-03
## 994
## 995
        1.92e-03 -3.28e-03 2.52e-03 -3.48e-04 4.50e-04 5.65e-03 2.19e-03
## 996
        4.56e-03 -1.86e-03 -5.88e-03 -1.32e-03 -1.52e-03 -5.14e-03 7.18e-03
## 997
        3.98e-02 7.03e-03 -3.60e-02 5.62e-04 -2.24e-02 -5.75e-03 -5.90e-03
       -3.46e-04 4.73e-04 2.39e-04 1.91e-03 1.85e-03 1.46e-03 1.17e-04
## 998
## 999
       -8.89e-03 -9.94e-03 4.65e-03 -5.16e-03 5.98e-03 4.80e-04 -1.28e-03
## 1000 -1.30e-03 6.78e-04 1.97e-03 4.20e-03 6.67e-04 1.78e-03 1.27e-02
       2.22e-02 -8.74e-04 -4.29e-02 1.98e-02 1.37e-02 -6.28e-03 -1.04e-02
        7.61e-03 -1.24e-02 1.38e-02 -3.00e-02 9.96e-04 7.03e-03 -1.90e-02
## 1003 2.68e-02 1.81e-02 -1.16e-02 -3.65e-02 -2.67e-02 7.18e-03 -2.13e-03
## 1004 -4.12e-03 6.27e-04 8.02e-03 -5.12e-03 -1.93e-02 -1.57e-02 -2.59e-03
## 1005 -8.09e-03 1.18e-04 5.77e-03 8.58e-04 7.77e-03 2.36e-03 4.13e-03
       1.21e-02 1.19e-02 -1.69e-02 -2.34e-02 2.44e-03 -9.41e-03 -1.67e-02
## 1007 -1.11e-01 6.79e-02 1.21e-01 -9.10e-03 -1.10e-01 -4.35e-02 2.91e-02
## 1008 1.79e-04 -2.06e-03 2.36e-02 7.99e-03 -3.27e-02 1.57e-02 9.75e-03
## 1009 4.09e-03 -2.05e-02 -1.13e-02 -6.24e-03 1.82e-03 -2.16e-03 2.71e-03
## 1010 -2.41e-03 -1.70e-03 -1.70e-03 3.55e-03 -3.05e-03 -7.49e-03 -1.89e-02
## 1011 -1.76e-03 1.03e-02 -8.01e-03 6.23e-03 3.93e-03 -6.04e-04 1.27e-02
## 1012 -1.29e-02 6.72e-03 2.10e-02 -2.60e-02 -2.49e-02 -3.98e-03 1.46e-03
## 1013 -2.71e-03 1.18e-03 3.08e-03 4.18e-03 -2.83e-04 1.39e-03 2.21e-02
## 1014 1.18e-03 -1.45e-03 6.19e-03 -1.79e-03 -7.76e-03 5.34e-04 -1.10e-02
## 1015 -4.61e-04 6.08e-04 1.20e-03 -1.92e-03 -2.74e-03 -3.82e-04 2.71e-04
## 1016 1.97e-03 -8.24e-05 -9.74e-05 -3.61e-04 -3.43e-03 -1.06e-04 -1.58e-03
## 1017 -1.63e-03 3.20e-05 1.32e-03 5.31e-04 1.72e-03 1.48e-03 9.47e-03
## 1018 1.15e-02 2.78e-03 4.30e-03 1.17e-02 -3.36e-02 -3.87e-03 -3.89e-04
## 1019 -7.80e-03 6.49e-04 4.80e-03 -1.07e-04 7.77e-03 9.70e-04 6.52e-03
## 1020 2.16e-03 -2.90e-03 5.01e-03 -1.94e-03 3.01e-04 6.89e-03 1.08e-03
## 1021 -2.19e-04 -2.74e-05 -2.42e-05 4.65e-04 -7.52e-04 -1.53e-03 -7.60e-03
## 1022 4.28e-03 -1.73e-03 5.65e-03 2.43e-02 -1.09e-02 2.40e-02 1.39e-01
## 1023 -1.03e-02 -4.43e-06 8.12e-03 1.46e-03 6.91e-03 2.05e-03 2.29e-02
## 1024 -4.16e-03 -8.62e-04 -5.87e-04 -3.23e-03 4.62e-05 -1.82e-03 -2.75e-03
## 1025 -5.39e-03 2.93e-03 2.45e-03 8.36e-03 -1.12e-03 1.03e-03 4.38e-02
## 1026 -6.85e-04 -3.21e-03 -4.41e-03 -9.99e-04 -1.70e-03 -4.74e-03 -5.98e-03
## 1027 -1.58e-02 2.58e-03 1.26e-02 1.66e-02 -1.00e-03 4.87e-03 1.13e-01
## 1028 1.89e-03 -3.05e-03 -4.52e-03 -4.52e-03 -2.23e-03 -6.41e-03 -6.54e-03
## 1029
        1.17e-02 6.95e-03 -1.22e-02 4.70e-03 1.35e-02 8.43e-03 3.84e-03
## 1030 -8.16e-04 -4.71e-03 -4.41e-04 3.06e-03 1.10e-03 6.49e-04 5.35e-04
## 1031 1.06e-03 2.26e-04 -1.43e-03 1.18e-03 -6.86e-04 6.91e-05 8.47e-05
## 1032 -7.07e-03 -5.43e-03 7.29e-03
                                     1.57e-02 1.48e-02 4.99e-03 4.50e-03
## 1033 -1.32e-02 7.19e-03 -3.00e-03 8.00e-03 1.58e-02 -4.11e-03 5.81e-02
## 1034 6.36e-04 8.64e-04 -2.09e-03 1.05e-03 1.15e-03 4.44e-04 7.84e-05
## 1035
       4.08e-03 1.33e-03 1.32e-03 3.90e-03 -1.46e-02 -5.77e-03 -5.19e-03
## 1036
        2.48e-04 5.25e-04 3.34e-05
                                    1.67e-04 -1.39e-03 -8.05e-04 -3.49e-03
       6.25e-03 -5.81e-03 5.40e-03 1.81e-03 -2.80e-02 -1.40e-02 -1.84e-03
## 1037
## 1038 -4.80e-03 -3.45e-03 7.29e-03 -7.40e-03 1.21e-03 -3.34e-03 -4.12e-03
## 1039 3.06e-02 1.47e-02 -4.84e-02 2.07e-02 -1.27e-02 -2.29e-02 -1.94e-02
## 1040 7.69e-03 -1.31e-02 1.70e-02 -3.20e-02 -4.64e-02 -6.66e-03 2.55e-03
```

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## 1041 -2.35e-03 -1.09e-03 5.43e-03 2.05e-04 -7.84e-03 -1.52e-03 -1.42e-02
## 1042 3.37e-03 -8.57e-04 -3.96e-03 -2.01e-03 -1.13e-03 1.21e-02 5.37e-03
## 1043 -6.20e-03 -1.14e-03 8.73e-03 -1.13e-04 3.59e-04 4.80e-03 2.09e-02
## 1044 -7.77e-03 -1.74e-04 4.73e-03 -3.96e-03 1.17e-02 5.24e-03 1.04e-02
## 1045 -4.27e-03 9.93e-04 4.56e-03 5.00e-03 -1.79e-03 -3.16e-03 -2.23e-03
## 1046 -1.82e-03 4.28e-03 -4.17e-03 7.96e-03 -4.54e-03 -8.42e-03 3.30e-04
## 1047 -1.35e-02 5.35e-03 2.04e-02 1.03e-02 -4.77e-03 1.67e-04 -1.43e-02
## 1048 -2.50e-02 8.79e-03 2.57e-02 -9.65e-02 -1.91e-02 7.37e-03 2.74e-04
## 1049 -6.94e-03 -2.77e-02 4.05e-02 3.57e-02 -3.10e-02 4.02e-04 4.79e-03
## 1050 1.00e-02 8.26e-03 -1.52e-02 9.76e-04 4.25e-03 -1.11e-03 -3.86e-03
## 1051 -1.46e-02 2.55e-02 3.42e-03 1.55e-02 -3.58e-03 -1.96e-02 -1.31e-02
## 1052 6.87e-03 -8.09e-03 -1.86e-02 -9.04e-03 7.88e-03 -3.56e-04 1.14e-02
## 1053 1.22e-03 3.73e-04 -2.51e-03 -4.78e-04 6.54e-04 -1.22e-04 5.30e-05
## 1054 -1.28e-02 1.97e-02 1.43e-02 -1.32e-02 2.02e-03 -3.87e-03 2.04e-03
## 1055 -7.15e-02 3.80e-02 5.18e-02 2.61e-02 -4.22e-02 -4.24e-02 -6.34e-03
## 1056 -7.53e-03
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## 1057 -2.14e-02 4.45e-02 1.12e-02 1.81e-02 -1.24e-02 -2.84e-02 -9.17e-04
## 1058 -5.21e-02 1.23e-01 1.02e-02 -6.59e-02 -7.29e-02 -1.02e-01 -4.21e-02
## 1059 3.34e-01 1.77e-01 -2.36e-01 -2.12e-02 -4.63e-01 -2.00e-01 -2.71e-02
## 1060 -1.49e-03 -6.63e-03 1.35e-02 -6.74e-02 -4.29e-02 6.60e-03 -2.70e-03
## 1061 -7.41e-03 7.49e-03 1.02e-02 -5.88e-03 -1.72e-02 -9.94e-03 -3.01e-03
## 1062 -6.55e-03 1.19e-03 4.31e-03 2.44e-03 1.58e-03 -4.15e-03 -5.97e-04
## 1063 2.94e-03 -6.24e-03 1.41e-04 -5.22e-04 -2.49e-04 7.79e-04 -1.24e-03
## 1064 -6.13e-03 2.56e-03 -2.20e-04 -5.52e-03 2.70e-03 -9.35e-03 -6.06e-03
## 1065 8.01e-03 8.05e-03 1.18e-02 1.33e-02 -5.41e-03 1.66e-02 -6.68e-03
## 1066 -1.18e-01 7.02e-02 1.16e-01 5.86e-02 -2.53e-03 -2.18e-02 3.85e-02
       1.61e-03 2.20e-03 3.89e-03 -3.55e-03 -5.05e-03 5.73e-03 1.92e-03
## 1067
## 1068 -4.19e-03 1.30e-03 1.27e-02 1.99e-02 -1.41e-02 -4.48e-04 3.35e-03
## 1069 3.18e-02 4.38e-03 -1.90e-02 7.03e-03 -6.72e-03 -1.06e-02 -5.56e-03
## 1070 -7.03e-02 5.01e-03 6.24e-02 2.44e-02 -1.36e-02 -1.08e-02 1.11e-02
## 1071 -4.58e-02 1.68e-02 4.98e-02 -1.23e-02 -8.71e-04 -7.62e-03 1.76e-02
## 1072 -3.00e-02 3.59e-02 2.54e-02 4.36e-04 -3.00e-03 -7.47e-03 -6.21e-03
## 1073 -8.82e-02 1.08e-01 4.65e-02 4.51e-02 -3.09e-02 -5.80e-02 1.90e-02
## 1074 -4.07e-02 -9.47e-03 8.10e-02 -9.13e-02 -8.09e-02 -5.05e-02 -1.92e-03
## 1075 -1.56e-02 7.74e-03
                           2.60e-02 8.33e-03 -6.92e-03 -7.91e-03 -7.62e-04
## 1076 6.60e-02 -4.66e-02 1.39e-02 3.47e-02 -7.16e-02 -2.63e-02 -3.00e-02
## 1077 -3.44e-03 3.90e-03 1.72e-03 3.04e-03 1.01e-03 -2.61e-03 8.68e-04
## 1078 3.91e-03 -4.69e-03 -8.58e-04 1.36e-03 -1.48e-03 2.38e-03 -2.59e-03
## 1079 -5.09e-02 9.76e-03 3.63e-02 5.37e-03 2.01e-03 -3.59e-03 1.94e-02
## 1080 -1.19e-02 1.99e-02 6.82e-03 1.38e-02 -8.35e-03 -9.30e-03 5.43e-03
## 1081 6.72e-04 -8.10e-03 1.17e-03 9.06e-03 5.53e-03 -9.03e-07 -4.83e-03
## 1082 2.58e-02 3.90e-02 -2.33e-02 2.71e-02 8.33e-03 -7.18e-04 6.25e-03
## 1083 -1.44e-02 1.53e-02 2.42e-03 1.16e-02 -1.06e-02 -1.88e-02 -7.08e-03
## 1084 -1.13e-02 9.83e-03 8.51e-03 9.53e-03 -1.10e-02 -1.33e-02 4.75e-03
## 1085 -2.22e-03 4.38e-03 5.30e-03 1.43e-03 1.28e-03 -2.20e-03 -1.84e-03
## 1086 -1.00e-02 5.68e-03 1.23e-02 1.34e-02 -2.23e-04 -8.25e-03 -6.41e-04
## 1087 -4.58e-02 -2.61e-03 4.09e-02 -6.24e-03 -1.59e-02 -1.03e-02 1.96e-03
## 1088 -8.46e-03 1.69e-02 1.34e-02 3.17e-04 -2.12e-02 -1.43e-02 -1.70e-03
## 1089 -1.01e-03 6.36e-03 4.29e-03 1.20e-02 1.39e-04 -4.52e-03 2.04e-03
## 1090 -4.23e-03 2.00e-02 -8.65e-03 2.87e-03 -1.14e-02 -3.80e-02 -1.01e-02
## 1091 -2.53e-02 7.26e-02 2.84e-02 -5.16e-02 -2.23e-02 3.48e-03 -9.41e-04
## 1092 -5.56e-03 1.77e-02 1.76e-02 -2.72e-02 -2.19e-03 1.28e-03 -1.38e-03
## 1093 -1.69e-02 1.14e-02 1.74e-02 2.12e-02 4.51e-03 -5.94e-03 -6.49e-04
## 1094 -2.64e-01 2.17e-01 2.83e-01 1.62e-02 -1.06e-01 -1.47e-01 2.97e-02
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## 1095 3.09e-03 -1.35e-03 3.41e-03 1.21e-03 -5.03e-03 -3.31e-03 8.54e-04
## 1096 -2.56e-03 -7.32e-03 6.28e-03 -1.04e-02 3.67e-04 4.41e-03 5.55e-03
## 1097 1.04e-02 -7.91e-03 5.50e-03 -1.96e-03 -5.64e-03 -1.41e-03 6.99e-04
## 1098 2.64e-04 9.75e-03 4.22e-03 -2.27e-03 -3.09e-03 -6.00e-03 3.19e-04
## 1099 -9.38e-03 -5.93e-03
                           2.21e-03 -2.75e-03 6.83e-03 5.70e-03 -2.27e-03
## 1100 -2.32e-03 -1.48e-02 6.36e-03 -3.70e-03 4.83e-03 9.66e-03 9.29e-03
## 1101 -3.18e-04 4.74e-05 -8.13e-05 -3.50e-05 5.59e-05 1.18e-04 1.48e-03
## 1102 -4.53e-02 -7.55e-02 7.48e-02 2.15e-02 3.69e-02 -1.84e-03 2.73e-02
## 1103 6.14e-04 -4.91e-04 8.32e-04 -3.27e-04 -7.18e-04 4.49e-05 -2.89e-03
## 1104 1.75e-03 -1.92e-03 2.29e-03 -1.94e-05 -2.19e-03 1.32e-03 1.60e-03
## 1105 -7.37e-04 -1.54e-04 1.37e-03 -4.90e-04 -1.06e-03 1.31e-03 3.42e-03
## 1106 -1.79e-03 -3.62e-04 -4.76e-04 -5.59e-04 1.37e-03 7.43e-04 1.45e-03
## 1107 -4.32e-03 -2.22e-03 2.27e-03 7.81e-03 4.37e-03 6.10e-05 8.99e-04
## 1108 1.84e-02 2.47e-02 1.23e-02 -6.61e-03 -3.23e-02 -3.37e-03 7.03e-05
## 1109 -4.82e-03 -9.19e-03 5.24e-04 -5.02e-03 2.39e-03 -8.58e-04 -1.41e-03
## 1110 3.62e-04 -2.42e-02 -1.04e-04 -2.06e-02 -8.42e-03 -1.00e-02 3.37e-04
## 1111 6.13e-04 4.23e-04 4.55e-05 -1.23e-03 -1.10e-03 1.36e-04 1.47e-04
## 1112 -1.23e-02 1.12e-04 6.80e-03 7.14e-03 8.40e-03 4.52e-03 2.90e-03
## 1113 -2.41e-03 -7.23e-03 -1.19e-03 -4.32e-03 2.97e-04 -1.93e-03 -9.13e-04
## 1114 -6.54e-03 -3.31e-02 -4.43e-03 -4.71e-03 1.57e-02 8.01e-04 -4.13e-03
## 1115 -1.41e-03 -1.56e-03 3.58e-04 -5.82e-04 2.79e-03 2.72e-03 -4.59e-04
## 1116 -4.78e-04 -7.73e-04 2.10e-03 -1.99e-03 -1.65e-03 -7.93e-04 2.84e-04
## 1117 3.06e-03 -1.99e-03 -1.69e-03 -1.77e-03 -2.12e-03 1.19e-03 -5.22e-04
## 1118 -1.20e-03 -7.59e-03 7.13e-04 -3.30e-03 1.11e-03 3.00e-03 1.78e-05
## 1119 4.65e-03 -1.20e-02 -9.36e-03 -5.76e-03 1.29e-02 7.87e-03 3.14e-04
## 1120 -5.13e-03 -6.29e-02 -1.68e-03 1.29e-02 3.62e-02 -8.88e-04 -7.64e-03
       6.06e-03 -5.74e-03 3.37e-03 -1.06e-02 -6.51e-03 -1.35e-03 1.98e-03
## 1121
## 1122 3.90e-04 8.33e-05 1.64e-04 -7.07e-04 -1.26e-03 -1.90e-04 -1.59e-05
## 1123 -6.31e-04 2.54e-04 2.01e-03 -6.79e-04 1.93e-04 -1.02e-03 3.12e-04
## 1124 2.71e-03 4.84e-03 3.73e-03 2.51e-03 1.61e-04 -7.34e-04 1.73e-03
## 1125 -1.19e-02 -6.12e-04 9.49e-03 4.35e-02 -1.36e-03 1.54e-03 -5.73e-04
## 1126 1.60e-03 2.32e-03 1.28e-03 3.25e-03 3.03e-03 -1.30e-03 4.41e-04
## 1127 5.05e-06 7.20e-06 7.86e-06 1.05e-05 -3.86e-06 -2.43e-06 1.44e-05
## 1128 7.73e-06 7.89e-04 7.52e-04 1.57e-04 -3.80e-04 -8.42e-04 1.29e-04
## 1129 -9.26e-04 -7.10e-04 -1.73e-03 -3.90e-03 3.78e-03 3.24e-03 -3.04e-04
## 1130 1.45e-02 2.22e-02 8.79e-03 -2.10e-03 -1.28e-03 7.40e-03 1.50e-02
## 1131 -2.64e-03 1.25e-03 1.42e-03 5.06e-03 9.71e-04 -5.19e-03 -4.56e-03
## 1132 1.75e-04 -4.65e-04 -1.35e-04 -3.49e-04 -9.93e-04 1.20e-04 -4.31e-04
## 1133 1.32e-02 5.89e-03 -1.87e-03 -9.28e-03 -5.88e-03 -1.35e-02 -3.72e-03
## 1134 -1.00e-03 1.21e-03 -7.43e-04 1.10e-03 1.18e-04 2.66e-04 -3.39e-04
## 1135 1.18e-04 1.05e-04 3.25e-05 -4.75e-05 -1.36e-05 -6.21e-05 -1.14e-04
## 1136 4.70e-03 -5.45e-03 6.91e-03 7.26e-03 3.53e-04 -8.95e-03 -2.73e-02
## 1137 -2.43e-03 -1.66e-04 -9.48e-04 5.93e-03 2.59e-03 2.80e-03 -1.05e-03
## 1138 -3.14e-02 4.65e-03 -5.31e-03 1.93e-02 9.63e-03 1.32e-02 7.27e-03
## 1139 9.00e-03 4.85e-03 -1.31e-03 -1.12e-02 -2.84e-03 -2.60e-02 -3.89e-04
## 1140 -4.44e-06 1.58e-05 2.70e-05 -3.18e-05 -2.22e-05 9.19e-06 2.17e-05
## 1141 4.00e-04 1.32e-04 5.97e-04 2.12e-03 2.31e-04 -2.01e-03 -1.58e-04
## 1142 -5.55e-03 2.86e-03 4.26e-05 3.09e-03 -5.23e-04 -1.69e-03 -7.53e-04
## 1143 2.06e-03 -1.93e-03 -5.63e-04 -2.60e-03 2.60e-04 4.41e-04 -1.55e-04
## 1144 2.58e-03 -8.94e-04 2.62e-03 9.44e-03 6.58e-03 -1.63e-03 -4.72e-03
## 1145 9.22e-04 -9.30e-04 1.61e-03 -5.45e-04 -3.82e-04 1.37e-03 2.86e-04
## 1146 -5.69e-04 -2.51e-03 4.05e-04 7.01e-04 -9.56e-04 -2.43e-04 -1.54e-04
## 1147 2.31e-02 -8.98e-02 1.01e-03 -1.93e-02 -1.01e-03 1.13e-03 -1.86e-02
## 1148 9.66e-04 -5.35e-02 -1.05e-02 -1.01e-03 1.50e-02 7.15e-03 -4.52e-03
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## 1149 1.40e-03 4.60e-03 -2.67e-03 2.89e-03 -1.85e-03 -3.01e-03 -9.41e-04
## 1150 5.44e-03 9.10e-04 -2.00e-03 -8.07e-03 4.40e-03 -2.74e-04 -1.31e-03
## 1151 5.70e-03 -6.72e-03 9.85e-03 5.46e-03 -7.99e-03 1.26e-03 6.22e-03
## 1152 -8.66e-04 -1.91e-03 1.21e-03 1.25e-03 -1.63e-03 2.84e-04 -8.03e-04
## 1153 -1.51e-03 -2.64e-03 -2.24e-03 -5.48e-03 3.91e-03 5.34e-03 -4.15e-04
## 1154 -4.08e-03 2.38e-03 3.30e-03 3.85e-03 -3.12e-03 2.14e-03 1.54e-03
## 1155 2.34e-02 -8.33e-02 -4.30e-02 -3.97e-02 2.29e-02 -4.35e-03 -2.08e-02
## 1156 1.23e-03 -7.46e-03 -4.36e-03 -8.38e-03 -1.29e-04 5.30e-03 -2.18e-03
## 1157 -1.89e-02 7.19e-03 6.15e-03 2.76e-02 5.70e-03 -1.50e-02 -1.27e-03
## 1158 8.51e-04 -1.57e-04 3.19e-03 -1.69e-03 1.98e-03 2.35e-03 1.81e-03
## 1159
       1.31e-03 -1.64e-03 2.71e-03 9.58e-04 -3.61e-04 -1.64e-03 -5.77e-03
## 1160 -4.14e-03 2.63e-02 1.65e-02 7.55e-03 9.48e-04 -1.54e-02 7.51e-03
## 1161 3.48e-03 -1.03e-04 -4.67e-04 1.25e-03 6.35e-03 -1.60e-03 2.71e-03
## 1162 1.56e-03 1.23e-03 -8.41e-03 -6.32e-04 1.03e-02 -2.39e-03 -3.77e-03
## 1163 2.05e-02 -4.37e-02 -7.26e-03 -5.67e-02 1.30e-03 1.80e-02 4.44e-03
## 1164 -9.49e-04 3.71e-03 -1.06e-03 -2.69e-03 2.16e-03 3.31e-03 -2.51e-03
## 1165 -2.01e-02 7.64e-03 1.89e-03 3.07e-02 -2.58e-03 1.93e-03 5.14e-03
## 1166 3.95e-03 -1.23e-03 9.90e-03 3.98e-03 -1.94e-03 4.80e-03 5.23e-03
## 1167 2.44e-03 -1.78e-03 2.80e-03 -1.12e-03 -3.19e-05 3.28e-03 -6.97e-04
## 1168 -4.43e-03 1.20e-03 -5.98e-03 -7.68e-04 2.72e-04 3.58e-03 -1.52e-03
## 1169 -4.73e-03 -1.58e-03 1.15e-03 3.70e-03 8.47e-04 4.25e-05 5.12e-04
## 1170 9.97e-05 8.17e-05 -1.11e-04 -1.91e-04 -1.50e-04 2.14e-04 3.71e-05
## 1171 5.82e-03 5.24e-03 5.64e-03 1.01e-03 -4.81e-03 -8.01e-03 -3.48e-03
## 1172 -5.86e-03 4.41e-02 -6.02e-02 5.57e-02 3.81e-02 -5.13e-02 -1.02e-02
## 1173 -7.83e-03 4.36e-04 6.18e-03 5.47e-04 2.73e-03 -9.61e-04 5.44e-04
## 1174 7.15e-02 -7.12e-03 -9.13e-02 -1.04e-01 -5.90e-03 2.22e-02 -2.81e-02
## 1175 -1.54e-02 6.21e-03 1.39e-02 1.42e-02 1.14e-02 -7.30e-03 6.29e-03
## 1176 1.15e-02 -7.43e-03 -2.67e-02 -2.39e-02 -3.47e-04 7.74e-03 -2.75e-03
## 1177 9.00e-03 -5.16e-02 -9.56e-03 -4.96e-03 2.00e-03 -6.64e-03 -6.27e-03
## 1178 5.90e-04 -1.16e-04 -4.31e-04 -1.13e-04 3.27e-05 -1.47e-04 -1.71e-04
## 1179 -3.24e-04 7.81e-04 2.58e-04 -2.59e-04 -1.68e-04 -3.14e-04 4.01e-04
## 1180 -7.14e-03 -3.88e-03 3.52e-03 -7.15e-03 3.27e-03 3.73e-04 1.77e-03
## 1181 -5.46e-03 1.93e-02 2.21e-02 1.31e-02 1.14e-02 -1.73e-02 4.69e-03
## 1182 -5.98e-03 1.51e-03 8.01e-03 8.71e-03 1.68e-03 -2.26e-03 3.88e-03
## 1183 1.33e-03 2.19e-02
                           1.12e-02 2.02e-02 -9.50e-03 -3.16e-03 3.28e-03
## 1184 -7.91e-03 -8.86e-05 7.40e-03 5.17e-03 7.07e-04 -3.95e-03 1.14e-03
## 1185 4.47e-03 1.01e-03 8.52e-04 -1.91e-04 -1.19e-02 9.81e-04 1.38e-03
## 1186 -4.58e-03 1.57e-03 2.57e-03 -1.96e-03 2.44e-03 4.17e-04 1.63e-03
## 1187 -3.79e-02 1.13e-03 1.85e-02 -2.22e-02 3.75e-02 -9.83e-03 -1.31e-03
## 1188 2.70e-03 1.13e-03 -2.38e-03 1.21e-03 -2.41e-03 -3.59e-04 -1.30e-03
## 1189 -1.99e-02 2.41e-02 2.28e-02 1.86e-02 -1.03e-02 5.29e-03 8.98e-03
## 1190 -2.17e-02 1.49e-02 2.42e-02 2.99e-02 -3.06e-03 -8.83e-03 7.88e-03
## 1191 -2.50e-02 3.49e-03 1.76e-02 1.91e-03 6.30e-03 -3.69e-03 2.74e-03
## 1192 -2.39e-02 2.69e-02 2.10e-02 3.55e-02 1.66e-03 -7.11e-03 1.08e-02
## 1193 -5.72e-04 -4.14e-04 2.86e-03 6.10e-04 1.02e-04 -1.73e-03 -2.15e-04
## 1194 3.31e-03 -1.57e-02 -4.05e-03 -4.18e-03 -5.31e-03 6.36e-03 3.33e-04
## 1195
       1.36e-02 -1.79e-02 -3.13e-02 -4.26e-02 1.37e-02 6.65e-02 1.57e-02
## 1196 1.21e-02 -1.16e-02 -5.05e-03 -3.62e-02 1.60e-02 1.42e-02 3.90e-03
## 1197 7.14e-04 4.98e-03 -2.59e-03 1.28e-03 -3.01e-03 1.50e-03 9.84e-04
## 1198 1.92e-03 6.91e-03 -2.78e-03 -4.93e-04 -4.86e-03 -5.30e-03 -1.13e-03
## 1199 -3.01e-03 -3.97e-04 5.98e-04 -1.11e-03 -1.43e-03 -1.95e-03 -4.07e-04
## 1200 2.07e-02 1.11e-02 -1.17e-02 -7.70e-03 7.54e-04 2.98e-03 5.40e-03
## 1201 -2.58e-02 -1.25e-02 4.10e-03 -1.12e-04 1.80e-02 6.21e-02 3.00e-02
## 1202 4.40e-03 -1.02e-02 -1.38e-02 2.75e-04 2.90e-04 1.75e-02 5.92e-03
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## 1203 7.64e-03 -3.06e-02 1.32e-02 1.19e-02 -1.02e-01 2.94e-02 2.82e-02
## 1204 -5.95e-02 9.35e-03 1.57e-01 1.02e-01 -8.61e-02 -1.14e-01 5.39e-03
## 1205 4.59e-04 3.98e-03 6.46e-04 -2.23e-03 3.85e-03 2.36e-03 -1.99e-03
## 1206 8.59e-03 5.96e-03 -7.18e-03 -1.68e-03 2.11e-03 -3.16e-03 1.77e-04
## 1207 -1.13e-03 7.31e-04 2.66e-03 2.62e-03 -2.97e-03 -6.55e-03 -1.81e-03
## 1208 -9.13e-03 -1.48e-03 -1.66e-02 -6.56e-03 1.44e-02 6.47e-02 2.92e-02
## 1209 3.51e-03 7.56e-04 -1.94e-03 4.62e-03 -2.42e-03 -9.21e-03 -2.88e-03
## 1210 1.25e-03 -3.69e-04 -1.21e-02 -1.01e-05 8.39e-03 7.24e-03 1.79e-03
## 1211 -3.98e-02 1.13e-02 1.60e-02 1.89e-03 2.93e-02 5.06e-02 2.49e-02
## 1212 1.68e-03 6.37e-03 -1.70e-02 9.73e-03 4.90e-03 -9.42e-04 2.41e-03
## 1213 -7.56e-03 7.36e-05 4.89e-03 4.96e-03 -2.94e-03 3.14e-03 3.51e-03
## 1214 -1.02e-02 1.09e-02 -4.22e-03 6.11e-03 7.14e-03 2.97e-02 1.47e-02
## 1215 -1.43e-03 3.45e-03 1.85e-03 1.25e-03 -1.85e-04 -3.08e-03 -6.47e-04
## 1216 2.70e-02 1.54e-02 -1.40e-02 -2.81e-02 -1.94e-02 -2.88e-02 -9.65e-03
## 1217 -1.87e-03 5.59e-02 2.28e-02 -1.65e-02 -3.24e-02 -4.91e-02 -2.68e-02
## 1218
       1.75e-04 2.22e-03 4.29e-03 -7.49e-04 -1.56e-03 -6.04e-03 -2.08e-03
## 1219 2.12e-03 1.04e-02 1.53e-02 -3.23e-03 -1.82e-02 -1.88e-02 -5.07e-03
## 1220 -2.43e-04 1.16e-04 -2.17e-04 -1.13e-04 -3.12e-04 8.12e-04 4.35e-04
## 1221 2.71e-02 1.50e-02 -1.15e-02 9.02e-03 -1.06e-01 -2.98e-01 -9.12e-02
## 1222 3.91e-05 -5.06e-04 -9.82e-04 8.37e-06 8.74e-04 7.42e-04 7.70e-05
## 1223 3.35e-02 1.73e-03 4.96e-03 3.08e-02 -2.92e-02 -7.39e-02 -3.45e-02
## 1224 2.41e-03 -1.76e-02 -5.71e-03 -7.19e-03 -8.23e-03 2.45e-02 1.36e-02
## 1225 3.36e-03 -3.04e-03 -5.02e-04 -1.15e-03 1.33e-02 1.89e-02 4.03e-03
## 1226 4.30e-03 -1.68e-03 -7.89e-04 -7.67e-04 -9.96e-05 -3.87e-03 -2.52e-03
## 1227 -3.57e-04 -3.48e-04 -1.96e-03 -8.03e-04 -2.54e-04 4.05e-03 1.96e-03
## 1228 -7.90e-04 4.16e-04 6.25e-04 4.08e-05 -1.02e-03 1.46e-03 7.50e-04
## 1229 -3.58e-02 4.00e-02 -5.46e-03 6.81e-02 -2.32e-02 -1.18e-02 8.23e-03
## 1230 1.14e-02 4.46e-03 -1.08e-02 -1.15e-02 -1.19e-02 -2.11e-02 -1.07e-02
## 1231 8.30e-03 1.38e-02 -3.80e-03 4.66e-03 1.57e-02 1.77e-03 -4.04e-03
## 1232 -1.28e-02 -7.03e-03 1.28e-02 4.06e-03 -5.71e-03 -3.74e-03 7.93e-04
## 1233 -2.79e-05 -2.05e-04 -1.41e-04 8.34e-05 3.90e-04 3.82e-04 1.10e-04
## 1234 5.49e-04 3.84e-04 -9.08e-05 -1.59e-04 -2.91e-04 -1.00e-04 -2.55e-04
## 1235
       1.33e-02 -2.94e-03 -1.15e-02 -1.08e-02 4.66e-03 7.44e-03 -1.83e-03
## 1236 3.51e-02 -3.30e-02 -3.47e-02 2.21e-02 1.31e-01 -5.13e-02 -4.11e-02
## 1237 -1.28e-02 -1.09e-02 1.25e-02 7.28e-03 6.63e-03 1.71e-02 9.92e-03
## 1238 -1.50e-02 -1.63e-02 1.25e-02 6.60e-03 -1.78e-03 1.11e-03 1.54e-03
## 1239 9.50e-03 -2.68e-02 -4.41e-04 5.90e-03 -5.15e-02 3.92e-02 1.77e-02
## 1240 -1.24e-02 -5.71e-03 6.74e-03 1.15e-02 4.51e-03 1.44e-02 7.86e-03
## 1241 -5.96e-03 -3.38e-02 3.95e-02 4.72e-03 -4.57e-02 -3.03e-02 -5.18e-03
## 1242 2.65e-03 2.28e-02 7.61e-03 -5.19e-03 3.71e-03 -1.23e-02 -7.02e-03
## 1243 7.51e-03 -3.91e-03 -5.29e-03 -3.19e-03 1.83e-02 -2.03e-02 -1.15e-02
## 1244 -2.48e-02 -5.72e-03 1.38e-02 -1.06e-02 2.07e-02 2.51e-03 6.48e-04
## 1245 1.85e-02 7.24e-03 -1.15e-02 -1.53e-02 7.57e-03 -1.92e-02 -1.84e-02
## 1246 -1.38e-04 1.12e-03 -3.50e-04 6.79e-04 -2.96e-03 5.99e-04 7.63e-04
## 1247 -3.37e-05 6.57e-05 2.55e-05 2.38e-04 5.35e-04 3.13e-04 2.09e-05
## 1248 3.91e-02 2.25e-02 -2.98e-02 -1.36e-02 -1.52e-02 -5.37e-02 -2.80e-02
## 1249 -3.72e-02 -1.28e-02 3.26e-02 9.03e-03 -3.37e-02 -2.57e-03 1.01e-02
## 1250 3.34e-02 -1.15e-02 -1.04e-02 3.99e-03 -4.08e-03 -3.06e-02 -1.72e-02
## 1251
       2.69e-04 2.71e-04 4.86e-04 2.10e-04 -1.10e-03 -2.05e-03 -6.03e-04
        5.77e-03 1.85e-03 -7.96e-03 -4.74e-03 1.98e-02 -1.26e-02 -6.43e-03
## 1252
## 1253 -8.06e-03 -5.00e-03 3.54e-02 1.35e-03 -1.38e-02 -4.07e-02 -1.16e-02
## 1254 5.88e-03 1.10e-02 -5.56e-03 1.00e-03 2.25e-03 -5.08e-04 -2.68e-03
## 1255 9.00e-03 -2.92e-03 4.63e-03 -5.38e-04 -2.33e-02 -2.94e-02 -8.55e-03
## 1256 -1.12e-02 -4.20e-03 1.97e-02 9.54e-03 1.93e-03 3.06e-02 1.40e-02
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## 1257 7.92e-03 4.40e-02 -1.49e-03 9.28e-03 -4.49e-02 -3.54e-02 -1.01e-02
## 1258 4.22e-03 -4.54e-03 4.12e-03 5.12e-03 -3.11e-02 1.50e-02 9.65e-03
## 1259 4.47e-03 1.12e-02 -2.63e-02 1.57e-02 4.02e-03 -1.80e-02 -4.77e-03
## 1260 -4.78e-03 -1.64e-02 1.93e-03 -2.69e-03 1.01e-03 -3.19e-03 -3.22e-03
       7.01e-02 -8.01e-02 -4.77e-02 2.33e-02 -3.34e-02 4.54e-02 1.17e-02
## 1262 2.20e-04 -5.40e-04 3.76e-04 1.48e-03 -3.62e-04 -1.12e-03 -7.30e-05
## 1263 5.34e-03 1.50e-03 -5.86e-03 -4.19e-03 -8.53e-03 -5.56e-03 -5.61e-03
## 1264 -9.22e-03 -6.06e-03 1.13e-02 -4.18e-04 -1.93e-03 -5.15e-04 2.62e-03
## 1265 -3.28e-03 3.51e-03 1.93e-02 4.77e-03 -1.16e-02 1.78e-02 -2.66e-03
## 1266 -2.49e-03 1.16e-02 -5.44e-03 1.95e-02 5.26e-03 3.99e-03 2.73e-03
## 1267 -2.06e-03 2.01e-03 5.29e-03 1.18e-03 -4.94e-03 1.04e-03 1.83e-03
## 1268 -1.58e-04 5.05e-04 -2.89e-03 2.24e-03 2.26e-03 -9.49e-04 -1.06e-03
## 1269 8.35e-04 1.46e-04 -4.35e-04 -1.55e-03 -2.25e-04 1.57e-03 4.95e-05
## 1270 -9.20e-04 5.83e-03 2.47e-02 -1.07e-03 7.08e-03 2.19e-02 3.79e-03
## 1271 -3.31e-03 2.60e-03 2.32e-03 -7.80e-04 -2.36e-03 9.28e-04 7.51e-04
## 1272
       2.19e-03 1.49e-03 -5.33e-04 -1.98e-03 -2.13e-03 1.40e-03 -1.35e-03
## 1273 9.18e-03 6.50e-03 -1.43e-02 -3.28e-02 -8.88e-03 2.59e-03 -7.59e-03
## 1274 6.95e-04 -4.04e-03 3.99e-03 -2.72e-03 -1.28e-03 7.40e-04 -1.70e-03
## 1275 -5.42e-03 4.81e-04 3.24e-03 5.95e-04 9.67e-03 8.49e-03 -3.36e-03
## 1276 6.66e-02 4.49e-02 -5.22e-02 -1.33e-02 -6.54e-03 8.45e-02 2.17e-02
## 1277 -2.02e-03 -7.33e-03 -7.46e-03 -1.12e-02 8.54e-03 -3.43e-03 -6.78e-03
## 1278 -2.03e-02 6.06e-03 1.62e-02 1.01e-03 -7.21e-03 -1.69e-02 -1.81e-03
## 1279 2.73e-03 9.63e-04 -8.74e-04 -1.32e-03 4.53e-03 5.95e-04 8.57e-04
## 1280 -5.54e-03 6.62e-03 6.46e-03 1.35e-02 -6.51e-03 2.52e-04 5.50e-03
## 1281 1.35e-02 5.76e-02 1.87e-02 3.39e-02 -4.23e-02 1.85e-03 -4.24e-03
## 1282 -8.40e-04 -6.41e-04 1.76e-03 1.43e-03 -2.10e-04 -3.44e-04 8.70e-05
## 1283 -3.45e-03 4.37e-03 -2.19e-03 -5.95e-03 -2.22e-03 1.12e-03 -1.42e-03
## 1284 -1.22e-03 3.73e-04 1.46e-03 2.85e-03 2.78e-03 3.11e-04 1.68e-03
## 1285 1.70e-03 -2.45e-03 1.91e-03 1.28e-02 3.33e-03 -2.97e-03 1.73e-03
## 1286 -5.82e-04 8.00e-04 6.52e-05 -9.07e-04 2.32e-03 2.65e-03 6.35e-04
## 1287
       1.57e-02 -2.38e-02 1.11e-02 3.19e-02 3.04e-03 1.20e-02 6.19e-04
## 1288 -1.27e-02 -3.42e-03 1.98e-02 4.70e-03 -2.55e-02 -2.00e-02 -6.54e-03
## 1289
       1.57e-02 9.92e-03 3.00e-03 -6.33e-03 -1.59e-02 8.57e-03 9.08e-03
## 1290 4.11e-02 8.96e-02 -4.46e-02 3.09e-02 6.31e-03 5.60e-03 3.30e-03
       9.14e-03 -7.19e-04 -7.96e-03 -2.69e-03 6.88e-04 1.13e-02 5.09e-03
## 1292 5.42e-05 2.09e-03 -3.19e-04 -5.27e-04 -2.01e-04 -8.69e-04 -5.35e-04
## 1293 2.27e-03 -1.14e-02 2.29e-02 -2.40e-02 -3.44e-02 4.10e-02 1.68e-02
## 1294 -2.49e-05 4.86e-04 -1.02e-03 -1.02e-03 9.25e-04 7.98e-04 -5.69e-04
       1.67e-03 -1.33e-02 -1.27e-02 -3.12e-02 3.01e-02 2.57e-02 6.99e-03
## 1296 9.34e-03 -4.57e-03 -1.69e-02 -5.58e-02 4.07e-02 2.46e-02 9.06e-04
## 1297 -3.56e-02 4.86e-02 -2.56e-02 -2.37e-02 1.88e-02 -2.21e-02 -5.58e-02
## 1298 8.70e-04 -6.02e-03 6.43e-03 1.92e-02 1.07e-02 5.62e-03 6.85e-03
## 1299 -2.64e-02 1.74e-02 3.31e-02 6.92e-02 -2.10e-02 -4.88e-02 -2.80e-02
## 1300 4.66e-03 -4.28e-03 -1.83e-02 -3.10e-02 2.74e-02 7.57e-04 1.03e-03
## 1301 -8.64e-03 -7.62e-03 4.61e-03 4.71e-03 1.12e-02 2.15e-04 3.55e-03
       5.57e-03 7.63e-04 -5.40e-03 -1.09e-02 -1.51e-02 8.45e-03 -2.64e-03
## 1302
## 1303 8.70e-04 -3.22e-04 -1.31e-03 4.35e-04 1.34e-03 9.61e-04 1.37e-03
## 1304 1.09e-03 -4.48e-02 2.55e-02 6.76e-02 3.40e-02 1.07e-02 1.48e-02
## 1305 1.99e-02 -1.23e-02 -4.88e-03 -3.22e-02 3.90e-02 2.30e-02 -2.42e-02
## 1306 -4.22e-03 -4.39e-04 -5.54e-04 -3.32e-03 -3.99e-03 -7.66e-03 -4.41e-03
## 1307 -1.17e-03 -5.02e-06 -1.16e-03 1.66e-04 1.56e-03 -9.79e-04 -1.25e-03
## 1308 -3.21e-03 9.71e-04 5.44e-03 1.09e-02 -5.82e-03 -3.58e-03 -9.76e-04
## 1309 -5.44e-03 7.76e-04 1.03e-02 7.81e-03 -5.71e-05 1.83e-03 -4.77e-03
## 1310 -5.96e-02 3.74e-02 5.25e-02 -5.16e-02 -6.98e-02 -5.82e-02 -5.88e-02
```

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## 1311 -2.10e-02 -5.33e-03 3.30e-02 7.97e-03 9.71e-04 -1.22e-02 1.31e-02
## 1312 -1.14e-02 -6.91e-03 -5.03e-03 -1.63e-02 1.26e-02 7.71e-03 9.46e-03
## 1313 -8.98e-03 3.57e-03 1.27e-02 -4.66e-03 2.72e-02 -1.12e-02 6.25e-03
## 1314 -7.03e-06 -2.57e-06 -4.58e-06 -1.49e-05 1.19e-06 -1.78e-05 -1.00e-05
## 1315 -1.11e-02 -9.11e-04 1.20e-02 -2.88e-03 -7.56e-04 -9.78e-03 6.09e-04
## 1316 -3.85e-02 -8.15e-03 1.40e-02 1.78e-02 2.28e-02 1.06e-02 -2.47e-03
## 1317 -1.82e-02 4.87e-03 3.11e-02 1.33e-02 1.73e-02 -7.84e-03 2.10e-02
## 1318 8.18e-03 -2.84e-04 -4.86e-04 -8.59e-03 -8.53e-04 1.00e-02 5.98e-05
        9.88e-05 2.70e-05 -2.58e-04 1.14e-05 -4.72e-04 -3.34e-04 -4.99e-04
## 1320 9.05e-03 -1.48e-03 -8.19e-03 -1.78e-02 4.58e-03 1.18e-02 1.14e-02
## 1321 3.08e-03 -1.15e-03 -2.55e-03 -7.08e-03 1.40e-02 4.07e-03 5.59e-03
## 1322 -7.13e-03 2.84e-03 2.54e-03 -5.12e-03 -6.83e-03 -1.90e-03 -9.67e-04
## 1323
       2.26e-03 2.79e-03 1.14e-02 1.09e-02 -3.98e-03 -1.17e-04 8.88e-03
## 1324 9.08e-03 1.64e-03 -3.56e-03 8.07e-03 2.08e-02 -2.35e-03 7.76e-04
## 1325 9.66e-03 -3.48e-03 -1.53e-03 -1.34e-02 6.28e-03 1.27e-02 -2.44e-03
## 1326 -1.71e-02 6.61e-03 1.52e-02 2.25e-02 -2.33e-02 -1.27e-02 1.92e-04
       1.59e-03 -1.33e-03 8.49e-03 7.14e-03 9.16e-04 -1.89e-03 5.49e-03
## 1327
## 1328 8.63e-03 1.59e-03 -1.89e-03 1.26e-02 2.49e-02 3.36e-03 7.12e-03
## 1329 -5.97e-04 1.53e-03 1.38e-02 5.71e-03 -1.10e-02 2.99e-04 -4.86e-03
## 1330 3.21e-02 -2.10e-03 -7.54e-03 -2.62e-02 3.69e-02 1.69e-02 1.37e-02
## 1331 2.55e-02 -5.47e-03 -4.74e-02 -2.85e-02 9.19e-02 2.99e-02 2.16e-02
## 1332 4.51e-05 -1.08e-04 -2.39e-03 8.10e-04 4.24e-03 1.64e-03 -1.78e-03
## 1333 -1.59e-04 -1.00e-04 -2.78e-04 -1.90e-03 1.17e-03 -1.81e-04 -3.98e-05
## 1334 4.11e-03 1.80e-04 6.81e-03 1.09e-02 -3.31e-04 6.85e-04 9.40e-03
## 1335 4.60e-03 -3.92e-04 1.40e-04 1.37e-03 -1.79e-02 1.52e-03 -5.17e-03
## 1336 -1.30e-03 -2.46e-04 4.47e-04 1.31e-03 -1.11e-03 -5.05e-04 -9.62e-04
       4.60e-03 -8.06e-04 -2.08e-03 1.14e-02 4.59e-03 5.29e-03 4.49e-03
## 1337
## 1338 5.10e-03 -6.82e-04 -6.88e-03 -8.37e-03 8.68e-04 3.31e-03 -3.89e-03
## 1339 -4.12e-03 2.77e-04 2.63e-03 7.96e-03 -8.73e-03 -1.77e-03 -7.46e-04
## 1340 -2.67e-04 -4.54e-04 -1.03e-03 2.68e-03 2.45e-03 -1.75e-03 7.10e-04
## 1341 3.25e-03 1.16e-03 -3.37e-03 -2.48e-02 1.21e-02 -3.61e-04 1.26e-03
## 1342 3.05e-04 1.07e-03 7.90e-04 -2.11e-03 -1.31e-03 2.14e-04 -1.96e-03
## 1343 2.96e-03 9.99e-03 -2.13e-02 3.76e-02 1.15e-02 -1.80e-02 -1.10e-02
## 1344 -1.85e-03 -3.36e-06 2.85e-03 -1.28e-03 5.67e-03 -3.28e-03 5.75e-04
## 1345 -8.78e-03 5.36e-03 1.84e-02 -7.18e-02 6.03e-03 -1.19e-02 2.18e-02
## 1346 6.94e-04 2.09e-03 8.83e-03 -6.66e-03 -4.20e-03 -8.26e-03 6.07e-03
## 1347 6.32e-03 3.80e-04 -4.70e-03 -3.30e-03 -3.25e-03 4.25e-03 9.95e-04
## 1348 -3.02e-05 -1.74e-05 2.35e-04 -2.88e-05 -1.32e-04 1.72e-05 1.56e-04
## 1349 -6.68e-04 3.03e-06 4.05e-04 7.81e-04 1.17e-04 -3.59e-04 -6.06e-04
## 1350 -3.15e-03 1.49e-02 -9.36e-03 -9.89e-04 6.04e-03 2.51e-03 -1.41e-02
## 1351 -1.64e-03 5.15e-04 1.44e-03 1.52e-03 4.93e-04 -6.35e-04 1.13e-03
## 1352 -5.17e-03 -4.45e-03 -5.78e-03 -1.42e-02 2.00e-02 9.83e-03 1.03e-02
## 1353 -7.18e-03 -8.06e-04 2.45e-04 -1.55e-03 8.58e-03 -6.06e-03 5.21e-03
## 1354 1.40e-02 -6.02e-04 -1.34e-02 -2.08e-02 1.21e-02 7.60e-03 1.60e-03
       7.42e-03 -2.31e-02 -3.55e-02 -2.79e-02 5.93e-02 2.04e-02 4.73e-03
       2.87e-02 -2.12e-02 -1.36e-02 -1.33e-02 2.87e-02 3.17e-02 3.11e-02
## 1356
## 1357
       9.93e-03 -1.73e-02 -1.44e-03 8.83e-03 1.20e-02 1.65e-02 1.07e-02
## 1358 8.05e-04 2.78e-04 8.87e-04 2.02e-03 -1.49e-03 -1.22e-03 1.81e-03
## 1359 -1.26e-03 9.56e-04 -3.79e-04 7.70e-03 6.29e-03 2.39e-04 6.99e-03
## 1360 -1.84e-03 1.11e-02 1.33e-02 4.82e-02 -3.38e-02 -2.94e-02 -1.15e-02
       9.10e-03 5.35e-04 6.14e-03 5.82e-04 -7.47e-03 5.69e-03 8.24e-03
## 1361
## 1362 4.99e-05 7.28e-04 -3.29e-04 1.73e-03 -5.18e-04 1.23e-04 -1.12e-03
## 1363 2.52e-03 2.96e-03 9.04e-04 9.66e-03 -8.07e-03 -5.43e-03 -5.32e-03
## 1364 2.78e-03 2.03e-03 -2.30e-03 -7.65e-03 -5.26e-03 1.27e-03 -2.07e-03
```

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## 1365 -4.79e-03 -1.95e-03 4.97e-05 -2.42e-03 3.68e-03 -6.79e-03 -1.70e-03
## 1366 6.87e-02 2.66e-02 3.90e-02 1.35e-01 -1.43e-01 6.81e-02 2.04e-02
## 1367 2.23e-02 5.98e-03 2.45e-03 -1.93e-02 9.47e-04 1.45e-02 1.84e-02
## 1368 5.01e-04 5.09e-03 7.53e-03 1.64e-03 -5.63e-03 5.04e-03 1.52e-03
## 1369 -5.01e-03 -2.54e-03 7.38e-03 -4.42e-03 5.33e-03 8.39e-03 4.42e-03
## 1370 -7.40e-03 1.35e-02 -6.10e-03 -1.03e-02 5.63e-03 3.49e-03 -4.31e-03
## 1371 -3.26e-03 3.15e-03 1.00e-02 6.06e-03 -5.32e-03 1.44e-03 -4.31e-04
## 1372 4.32e-03 -4.95e-03 -5.24e-03 1.74e-03 1.85e-03 -3.06e-03 -1.59e-03
## 1373 -5.49e-03 2.98e-02 -1.25e-02 -8.47e-03 2.50e-02 2.41e-02 2.18e-03
## 1374 1.07e-03 -4.32e-04 -1.49e-03 6.32e-04 2.89e-04 -2.27e-03 -9.93e-04
## 1375 -7.41e-05 1.49e-03 -2.78e-03 -3.65e-03 7.96e-04 -5.54e-05 2.52e-04
## 1376 9.96e-03 -9.42e-03 -5.19e-03 2.84e-03 -9.55e-03 -1.47e-02 1.02e-03
        1.35e-02 -8.84e-03 -1.37e-02 -1.18e-03 -3.20e-03 -7.76e-03 -3.03e-03
## 1377
## 1378 2.56e-03 -3.65e-03 -4.14e-03 1.06e-04 1.66e-03 -1.09e-03 9.24e-04
## 1379 -1.75e-02 2.97e-02 8.71e-03 -2.89e-03 -1.25e-03 1.08e-02 9.44e-04
## 1380 -5.12e-03 5.63e-03 7.43e-03 -1.84e-03 2.30e-04 1.15e-02 5.14e-03
## 1381 -1.96e-03 8.38e-04 1.20e-03 -5.65e-05 1.53e-03 5.99e-04
                                                                  2.75e-04
## 1382 1.96e-02 -2.30e-02 3.09e-03 1.51e-02 -9.54e-03 -8.07e-03 3.48e-03
## 1383 -7.97e-03 2.18e-03 1.26e-02 -4.09e-03 -8.44e-03 8.91e-03 4.14e-03
## 1384 -1.63e-02 1.97e-02 6.88e-03 -6.86e-04 1.20e-03 1.20e-02 3.01e-03
## 1385 3.14e-03 5.94e-03 6.51e-03 -5.10e-03 3.82e-03 1.15e-02 1.48e-03
## 1386 9.91e-03 1.09e-02 -1.08e-02 -1.01e-02 1.61e-03 1.09e-02 -4.57e-03
## 1387 -3.54e-03 2.44e-02 6.81e-03 4.69e-03 -5.86e-03 4.79e-03 3.92e-04
## 1388 -1.30e-03 2.62e-03 -2.94e-03 -8.56e-03 7.54e-03 1.03e-02 1.13e-03
## 1389 -2.63e-04 2.94e-02 -2.64e-03 -6.76e-03 8.90e-03 2.34e-02 4.35e-03
## 1390 -3.86e-02 6.36e-02 9.39e-02 2.89e-02 -3.83e-02 3.47e-02 2.96e-02
## 1391 8.62e-03 1.66e-03 -6.35e-03 2.82e-02 -1.43e-02 -1.60e-03 1.34e-03
## 1392 -1.92e-03 1.59e-02 -1.06e-03 -3.30e-03 1.55e-03 8.60e-03 -4.28e-04
## 1393 -5.81e-02 3.07e-02 5.46e-02 -1.19e-02 1.32e-02 3.80e-02 1.85e-02
## 1394 6.53e-03 -2.64e-02 3.10e-02 -7.64e-03 2.57e-02 3.00e-02 -9.97e-03
## 1395 -1.99e-02 2.23e-03 2.03e-02 8.25e-03 6.96e-03 -2.24e-03 -2.12e-03
## 1396 8.81e-03 3.67e-03 -1.96e-03 -1.39e-03 -1.12e-02 -6.74e-03 8.15e-03
## 1397 -1.50e-03 4.57e-03 7.07e-04 6.32e-03 1.93e-03 2.34e-03 4.77e-03
## 1398 1.30e-02 1.56e-02 -1.32e-02 -1.10e-02 -4.37e-03 -4.20e-03 1.05e-02
                 2.66e-02 2.70e-02 6.57e-03 1.85e-03 -8.28e-03 9.65e-03
## 1399 -2.88e-02
## 1400 -4.79e-02 2.99e-02 -1.99e-03 -3.81e-02 1.85e-02 -5.08e-02 -2.88e-02
## 1401 -1.18e-01 8.80e-02 9.75e-02 1.25e-02 -1.99e-02 -6.44e-02 1.77e-02
## 1402 -1.31e-02 2.74e-02 7.30e-03 -3.35e-02 9.73e-04 -3.77e-03 -3.42e-03
## 1403 -1.09e-01 8.89e-02 7.25e-02 2.13e-02 -5.07e-03 -2.38e-02 2.33e-02
## 1404 1.27e-02 6.19e-03 1.54e-02 -2.82e-02 -2.14e-02 7.60e-03 -2.77e-03
       6.53e-03 4.55e-02 7.29e-03 1.20e-02 4.39e-03 -2.51e-03 3.69e-03
## 1405
## 1406
       4.28e-03 -4.43e-03 -5.89e-03 -1.03e-02 3.03e-03 1.33e-02 -1.71e-03
## 1407
        3.79e-04 -6.81e-04 -6.68e-04 -9.08e-04 4.84e-04 7.79e-05 -5.24e-04
       1.87e-02 -2.27e-03 -4.53e-03 -1.32e-02 -2.27e-02 8.80e-03 -6.48e-03
## 1408
## 1409 -2.46e-03 -1.97e-02 3.08e-02 -6.25e-03 -2.50e-02 1.11e-02 -1.09e-02
## 1410 4.53e-03 -4.21e-03 9.49e-03 -2.75e-03 -1.14e-02 1.74e-03 -5.74e-03
## 1411
       5.07e-04 -5.89e-03 2.11e-02 -1.18e-02 -1.41e-02 -1.64e-04 2.12e-03
## 1412 7.92e-04 -5.45e-03 1.22e-02 -7.30e-03 -4.02e-03 3.47e-03 -9.90e-04
## 1413 1.61e-03 -4.38e-03 6.49e-03 -6.36e-04 -6.87e-03 -1.05e-03 -1.77e-03
       3.94e-03 -3.47e-03 9.28e-03 2.20e-03 -8.49e-03 -2.82e-03 -6.30e-03
## 1414
## 1415 -2.48e-03 -3.23e-04 7.57e-03 3.12e-03 -5.89e-03 -6.79e-04 -1.09e-03
## 1416 5.89e-03 -7.11e-03 -1.38e-02 -2.91e-03 1.41e-02 5.86e-03 -5.64e-03
## 1417 -2.95e-02 1.17e-02 2.27e-02 -4.35e-03 -2.33e-03 -2.42e-02 -8.96e-03
## 1418 1.98e-03 -4.08e-03 1.15e-03 5.10e-04 -2.15e-03 -5.12e-03 -3.74e-03
```

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## 1419 -1.26e-03 3.75e-03 -8.41e-04 -1.24e-03 6.19e-04 -4.63e-03 -1.82e-03
## 1420 -5.50e-05 7.45e-04 -1.75e-03 -8.01e-04 -7.16e-05 -2.27e-03 1.61e-03
       1.05e-02 -9.08e-03 1.86e-03 -1.58e-02 -2.47e-03 8.43e-03 2.26e-03
## 1422 2.20e-03 -1.23e-03 -2.60e-03 -5.37e-04 -3.90e-04 -2.42e-03 -1.76e-03
        1.03e-02 -3.67e-03 7.53e-03 -7.41e-03 -5.40e-03 4.43e-03 1.08e-02
## 1424 -1.25e-02 3.58e-03 1.03e-02 -1.08e-02 4.79e-04 -8.41e-04 1.31e-03
## 1425 6.84e-04 5.95e-04 -5.76e-04 -1.40e-04 1.05e-04 2.30e-04 1.75e-04
## 1426 7.03e-03 -8.29e-03 3.92e-04 -1.01e-02 1.61e-02 9.01e-03 -1.02e-03
        1.80e-03 5.77e-04 -2.61e-03 3.13e-03 3.15e-03 4.74e-04 6.61e-04
## 1428 -2.89e-02 1.43e-05 2.48e-02 -5.03e-03 -7.69e-03 7.28e-03 -2.10e-03
## 1429 -1.51e-02 -1.05e-02 3.87e-02 -9.93e-02 -1.01e-01 1.85e-01 8.16e-02
## 1430 -1.57e-03 2.60e-03 -1.30e-03 -1.99e-04 -5.62e-04 -7.50e-04 -6.51e-04
## 1431 -4.29e-03 8.06e-03 1.96e-02 -5.24e-02 -2.70e-02 4.85e-03 -6.52e-03
## 1432 9.66e-03 3.40e-04 -5.31e-03 -1.70e-02 -9.73e-03 -3.45e-03 -6.70e-03
## 1433 1.46e-03 1.87e-03 -6.60e-03 -2.55e-03 8.55e-03 -9.33e-04 1.97e-03
## 1434 -2.81e-02 3.86e-02 1.63e-02 -3.73e-02 -1.05e-02 2.84e-03 -5.23e-03
## 1435 -5.33e-04 -1.44e-03 -1.46e-03 -2.50e-03 8.75e-03 3.34e-03 4.52e-04
## 1436 7.34e-03 1.65e-02 -6.26e-02 4.25e-03 2.72e-02 -2.61e-02 -2.41e-02
## 1437 -4.75e-03 -1.76e-03 -1.38e-03 -2.36e-03 9.15e-03 -6.06e-03 -6.36e-03
## 1438 -1.90e-03 -2.10e-03 1.56e-03 1.37e-03 -3.35e-04 1.14e-03 -2.08e-03
## 1439
       1.59e-02 -4.87e-03 -1.43e-02 -7.70e-03 5.96e-03 -4.49e-04 -2.77e-04
## 1440 7.10e-03 -1.25e-02 2.65e-03 -3.59e-03 2.26e-03 3.84e-02 1.43e-02
## 1441 9.40e-04 1.23e-03 -2.60e-03 4.81e-03 2.26e-03 -2.28e-03 1.12e-03
        7.56e-03 -8.03e-03 3.90e-02 8.24e-03 -1.07e-02 5.53e-03 1.31e-02
## 1442
## 1443 1.57e-04 -2.12e-03 1.65e-03 1.80e-03 -8.14e-04 -4.82e-03 -1.85e-03
## 1444 3.09e-02 -2.24e-02 -1.36e-02 -3.21e-02 1.85e-02 3.39e-02 1.22e-02
## 1445 -3.95e-02 4.23e-02 1.15e-02 -2.36e-02 -4.72e-02 -4.93e-03 -2.29e-03
        1.63e-04 5.83e-05 -4.69e-04 -2.23e-04 2.42e-06 3.90e-05 -2.96e-04
## 1446
       3.01e-03 9.03e-03 -1.89e-03 4.07e-03 -4.36e-03 -4.54e-04 -2.04e-04
## 1447
## 1448 4.02e-02 -1.89e-03 -7.64e-02 3.48e-02 6.56e-03 -3.69e-02 -1.73e-02
## 1449 -1.66e-02 4.50e-03 5.96e-04 6.15e-03 -5.74e-03 -8.72e-03 1.73e-05
## 1450 -4.54e-04 4.71e-04 3.50e-03 -4.22e-03 -8.26e-03 -2.10e-03 -4.39e-04
## 1451 -1.64e-03 2.15e-03 1.06e-03 2.20e-03 -1.29e-03 -5.51e-03 -2.26e-03
## 1452 1.31e-02 7.57e-03 -4.24e-03 -3.63e-02 -2.73e-02 -1.22e-03 -9.30e-03
## 1453 -9.13e-03 -5.30e-03 6.60e-03 1.55e-03 -1.68e-03 -1.44e-03 -3.79e-03
## 1454 -6.89e-03 -1.01e-01 3.90e-02 -9.73e-04 6.68e-02 3.18e-02 1.29e-02
## 1455 -4.61e-03 2.69e-03 1.06e-02 -1.46e-02 -1.62e-02 -2.23e-03 -1.43e-03
## 1456 -1.40e-04 -1.73e-02 1.32e-03 1.01e-02 2.34e-03 -1.91e-02 -1.07e-02
## 1457 -1.34e-02 -2.11e-02 1.76e-02 -2.05e-02 2.93e-02 7.68e-03 1.93e-03
## 1458 1.71e-03 -5.47e-03 3.48e-03 -1.01e-02 -7.10e-03 4.13e-03 -1.44e-03
## 1459 -1.67e-02 1.31e-02 1.37e-02 -3.09e-02 -2.14e-02 -2.88e-03 -4.55e-03
## 1460 -4.13e-03 1.49e-02 -6.60e-03 8.20e-03 -3.43e-03 1.25e-03 1.38e-03
## 1461 1.62e-04 -1.40e-04 -3.23e-04 3.40e-05 2.44e-04 4.20e-04 1.84e-04
## 1462 2.62e-02 3.56e-02 -6.00e-03 3.60e-02 1.28e-02 1.84e-02 1.14e-02
## 1463 2.33e-02 -2.75e-02 3.02e-02 -6.63e-03 7.32e-04 1.56e-02 7.00e-03
## 1464 -5.45e-04 2.24e-03 -5.84e-05 -8.99e-05 -1.28e-04 8.94e-04 3.22e-04
## 1465 -1.20e-02 1.16e-02 1.31e-02 -1.76e-02 -9.59e-03 -1.50e-04 -4.98e-03
## 1466 3.03e-04 -8.64e-03 4.11e-03 -1.48e-02 -1.17e-02 -4.85e-04 -4.23e-03
## 1467 -7.92e-03 7.83e-03 1.73e-02 -2.69e-02 -1.81e-02 3.24e-04 3.23e-03
## 1468 -1.09e-01 2.30e-03 4.36e-02 -8.50e-03 -7.87e-03 -1.98e-02 -4.21e-03
## 1469 1.46e-02 -2.04e-03 -8.11e-03 7.40e-03 -2.26e-03 2.27e-03 4.54e-04
## 1470 -4.26e-03 -7.78e-03 1.13e-02 -3.30e-03 -1.05e-02 -5.82e-04 3.32e-04
## 1471 1.98e-02 -4.87e-03 -1.83e-02 -1.30e-02 2.19e-03 1.12e-03 2.00e-03
## 1472 -1.70e-02 8.11e-03 2.55e-02 6.05e-03 6.98e-03 6.35e-03 4.63e-03
```

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## 1473 -1.02e-03 5.26e-04 4.40e-03 -3.83e-04 1.75e-03 4.88e-03 3.37e-03
## 1474 -9.26e-03 -1.33e-03 3.31e-03 2.96e-04 -2.90e-04 3.98e-04 -4.84e-03
## 1475 -1.21e-02 2.27e-03 1.83e-03 5.46e-03 -5.80e-03 -3.29e-03 -4.24e-03
## 1476 -3.30e-02 8.83e-03 2.76e-02 -1.91e-02 -1.43e-02 3.33e-03 -3.07e-03
## 1477 -2.36e-03 -2.48e-03
                            3.65e-03 -3.43e-03 -4.03e-03 -2.71e-03 -3.13e-03
## 1478 -1.05e-02 3.04e-03 8.26e-03 -8.10e-03 -1.56e-03 -5.15e-03 -5.19e-03
## 1479 -4.31e-03 -1.91e-02 5.66e-03 -1.62e-03 -1.47e-02 -6.93e-04 -5.22e-03
## 1480 -7.80e-04 -2.23e-03 5.17e-04 -1.37e-03 -3.60e-04 -2.06e-03 -1.15e-03
## 1481 -6.72e-03 9.09e-04 1.33e-02 -3.09e-03 -6.77e-03 4.49e-03 -2.84e-04
## 1482 -6.62e-03 4.71e-03 7.61e-03 -9.95e-03 -1.53e-02 4.14e-03 2.46e-05
## 1483 1.09e-03 -3.17e-04 6.24e-04 7.04e-04 -1.48e-03 -8.48e-03 -3.91e-03
## 1484 5.89e-03 -7.53e-03 -1.70e-02 -1.17e-02 1.62e-02 -6.45e-03 5.73e-04
## 1485 -1.40e-02 9.95e-03 2.16e-02 -3.38e-02 -1.21e-02 -1.30e-03 -2.92e-03
## 1486 -1.48e-03 3.13e-04 1.42e-03 1.31e-04 -1.09e-03 -1.07e-04 -4.93e-04
## 1487 6.88e-02 -2.50e-03 -1.46e-02 -1.31e-01 -2.20e-02 5.44e-02 -9.02e-03
## 1488 -1.66e-03 -2.89e-03 5.65e-03 3.74e-04 2.74e-03 3.42e-03 2.24e-03
## 1489 -8.14e-03 -5.55e-03 1.38e-02 -8.24e-05 -4.08e-03 -3.90e-03 1.02e-05
## 1490 -4.98e-05 1.82e-04 1.91e-05 2.06e-05 -1.98e-05 -1.03e-05 9.59e-06
## 1491 5.39e-03 -2.14e-03 -1.69e-03 8.73e-03 2.23e-03 1.44e-03 1.06e-03
## 1492 2.22e-03 -4.64e-03 -1.53e-02 -9.93e-03 1.55e-02 2.88e-04 -8.84e-03
## 1493 -6.70e-04 -1.94e-03 1.80e-03 1.48e-03 6.22e-04 1.24e-03 -1.06e-04
## 1494 1.14e-02 1.09e-02 -5.30e-03 -7.07e-03 -1.71e-02 -9.67e-03 -3.53e-03
## 1495 5.91e-02 9.96e-03 -8.61e-03 2.03e-04 -2.54e-02 -5.72e-02 -2.84e-02
## 1496 6.33e-02 1.97e-02 -2.37e-02 1.91e-02 -3.31e-02 -1.54e-02 -1.07e-04
## 1497 -6.61e-02 8.36e-02 8.82e-02 7.84e-02 -1.79e-01 -1.11e-02 -1.53e-02
## 1498 4.33e-03 5.43e-04 -1.80e-03 -4.15e-03 -2.63e-03 -6.76e-04 1.96e-03
## 1499
        2.97e-02 -1.53e-02 -6.14e-03 2.68e-03 -4.35e-03 -7.97e-03 -1.74e-03
       5.58e-03 -4.99e-03 -1.56e-03 -1.28e-02 -9.89e-04 -4.62e-03 -1.75e-03
## 1500
## 1501 -7.73e-05 -2.29e-02 4.27e-03 -4.72e-04 8.49e-03 -9.17e-03 -1.71e-04
## 1502
       1.02e-02 1.40e-02 5.27e-03 1.11e-02 -2.11e-02 -2.56e-02 -4.08e-03
## 1503
        1.34e-04 1.95e-02 2.07e-03 -2.47e-03 -1.75e-02 -1.39e-02 -2.61e-03
## 1504
       6.99e-02 5.40e-03 -6.73e-03 -4.76e-02 -4.77e-02 -1.41e-04 -1.62e-02
## 1505
       2.04e-03 -1.45e-03 7.66e-04 7.48e-03 -8.87e-04 -8.40e-03 2.41e-04
## 1506 5.73e-03 1.02e-02 4.40e-04 -1.68e-02 -3.52e-02 -1.37e-02 3.09e-03
## 1507 -1.77e-03 -1.30e-02 -2.80e-03 3.16e-03 -6.23e-03 -4.86e-04 -2.76e-03
## 1508 1.03e-03 2.42e-03 -1.11e-03 -9.35e-03 -5.92e-03 -1.94e-03 -4.36e-03
## 1509 -2.94e-04 3.55e-02 2.27e-02 -1.12e-02 -5.34e-02 -8.05e-03 1.26e-03
## 1510 2.33e-02 -5.01e-03 -1.55e-02 -1.88e-02 -1.90e-02 -1.32e-02 -1.02e-02
## 1511 -1.67e-03 -1.83e-04 4.58e-04 1.67e-03 -3.25e-03 -1.31e-03 -1.08e-03
## 1512 -3.19e-03 -6.49e-03 -8.04e-03 -2.29e-03 2.90e-02 6.06e-04 1.20e-03
## 1513 -5.99e-02 3.42e-03 3.46e-02 2.47e-02 -2.75e-02 -1.93e-02 -7.09e-04
## 1514 -9.80e-03 -1.09e-02 7.73e-03 1.25e-02 2.41e-02 -5.24e-04 2.73e-03
## 1515 8.47e-04 1.02e-03 1.51e-03 1.12e-04 -1.41e-03 -6.33e-04 5.98e-04
       2.05e-02 2.81e-02 -1.06e-02 -8.08e-03 -2.58e-02 -1.45e-02 -3.09e-03
## 1516
       2.06e-02 1.40e-02 -1.14e-02 -1.78e-02 -6.19e-03 -1.71e-03 -2.18e-02
       2.40e-02 2.74e-02 -1.83e-02 -7.64e-03 -3.90e-02 1.81e-02 7.26e-03
## 1518
## 1519
        7.45e-02 -1.15e-03 -3.51e-03 3.28e-02 -4.02e-02 -3.03e-02 -1.16e-02
       1.03e-02 3.78e-03 -5.24e-03 -7.38e-03 -4.81e-03 4.26e-03 -2.81e-03
## 1520
## 1521 5.12e-04 5.21e-03 -4.03e-03 -4.39e-03 -5.11e-03 -4.29e-03 -6.64e-03
## 1522 -7.18e-03 3.26e-02 1.32e-02 6.25e-03 -4.23e-02 -1.14e-03 -1.77e-03
       2.73e-02 -1.75e-02 1.40e-02 1.45e-02 -1.45e-02 -3.42e-02 -8.25e-03
## 1523
## 1524 1.16e-02 -4.05e-02 4.06e-02 3.79e-03 -8.99e-03 -1.20e-02 3.58e-03
## 1525 1.42e-02 -2.05e-02 -8.15e-03 -8.21e-03 -3.21e-04 -8.56e-03 -6.14e-03
## 1526 -3.74e-03 -1.71e-03 -2.30e-04 5.07e-04 2.50e-03 8.66e-03 3.91e-03
```

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## 1527 6.37e-03 1.50e-02 -5.19e-03 -5.91e-03 -2.45e-02 -1.80e-02 -2.56e-03
## 1528 -5.56e-04 -1.09e-02 2.82e-03 2.91e-03 5.94e-03 7.43e-03 3.41e-03
        1.66e-02 5.28e-03 -1.33e-02 -2.60e-03 -5.67e-03 -5.36e-03 -3.11e-03
## 1530
       2.79e-03 2.79e-03 -3.43e-03 6.19e-03 -1.75e-05 -5.20e-03 2.46e-04
## 1531 -2.17e-03 3.91e-03 -6.87e-04 -5.04e-04 -1.50e-03 -2.37e-03 -2.53e-03
## 1532 6.82e-03 1.67e-02 -2.16e-03 1.52e-02 -8.55e-03 -1.29e-02 -9.30e-03
        1.39e-02 2.32e-03 -1.11e-03 -2.52e-04 -1.54e-02 -2.85e-02 -5.55e-03
        1.62e-02 1.65e-02 -6.28e-03 5.36e-04 -3.21e-02 -1.62e-02 -3.32e-03
## 1534
## 1535
        9.42e-03 1.31e-02 5.19e-03 3.38e-04 -1.46e-02 -1.75e-02 -4.07e-03
## 1536 -3.36e-03 2.35e-03 2.35e-03 1.21e-03 -1.92e-03 -6.70e-03 -2.68e-03
## 1537
        1.43e-02 -1.64e-02 -7.84e-03 2.85e-03 1.28e-03 -2.74e-02 -1.21e-02
        2.69e-02 2.16e-02 -1.60e-02 -6.35e-03 -2.42e-02 -2.91e-02 -2.51e-03
## 1538
## 1539
        1.19e-02 2.00e-03 -2.86e-03 -6.30e-03 -9.25e-03 -8.70e-04 2.83e-03
## 1540
        1.03e-02 1.26e-02 1.72e-03 1.79e-03 7.95e-04 -1.43e-02 -1.08e-02
        2.93e-04 -1.58e-03 5.21e-04 1.29e-03 -1.43e-03 -4.97e-03 -1.62e-03
## 1541
## 1542
        1.28e-02 -2.13e-02 3.21e-02 -7.28e-04 -9.21e-03 -3.73e-02 -8.58e-03
        1.09e-02 -2.27e-03 -4.66e-03 -7.93e-03 -1.94e-02 -2.40e-02 -3.20e-03
## 1543
        3.64e-04 -2.78e-04 1.53e-03 -1.54e-03 -1.00e-03 9.01e-04 8.19e-04
        4.14e-03 -2.88e-03 1.21e-02 3.25e-03 -1.86e-02 -1.05e-02 -4.36e-04
## 1545
## 1546
        2.12e-02 7.69e-03 -7.84e-03 -7.56e-03 -1.06e-02 -5.98e-03 -5.46e-03
## 1547
        4.59e-03 2.96e-03 2.52e-04 -2.36e-03 -4.47e-03 -4.66e-03 -2.34e-03
        1.02e-01 -5.01e-02 -7.10e-02 1.58e-02 5.99e-03 9.75e-03 8.61e-03
        2.40e-04 -3.11e-04 -2.94e-05 -4.79e-05 -4.32e-04 -7.17e-05 -8.14e-05
## 1549
        2.08e-03 1.46e-03 -4.84e-03 -1.75e-03 -2.13e-03 -1.36e-02 -5.40e-03
## 1550
## 1551
       2.62e-03 8.50e-03 9.11e-03 3.03e-03 -8.99e-03 -7.44e-03 -8.52e-04
## 1552 -7.86e-03 -2.79e-02 6.71e-02 2.03e-02 -2.28e-02 -3.70e-02 7.24e-03
        3.80e-03 1.16e-03 -1.92e-03 -1.03e-03 -4.07e-03 -1.88e-03 -3.67e-03
## 1553
       8.97e-04 6.44e-03 -3.62e-03 -3.26e-03 -1.71e-02 -4.22e-03 -6.23e-03
## 1554
       7.97e-03 6.03e-03 -1.61e-02 8.79e-04 1.19e-02 7.71e-04 1.72e-03
## 1555
## 1556
       6.62e-03 2.66e-03 -4.98e-03 -3.60e-03 -2.76e-03 -7.74e-04 2.84e-05
## 1557
        8.73e-03 -3.31e-03 -1.29e-02 -6.08e-03 -8.32e-04 -1.59e-02 -4.97e-03
## 1558
       4.02e-03 2.19e-03 -2.73e-03 -2.24e-03 -5.09e-03 -3.34e-03 5.00e-04
## 1559 -3.63e-03 2.52e-04 3.78e-03 -1.02e-02 -1.26e-02 -1.74e-03 -2.40e-03
## 1560 -5.04e-02 1.62e-03 7.71e-03 5.57e-02 5.30e-02 -1.63e-02 2.36e-02
       8.67e-04 8.05e-03 1.04e-03 8.66e-03 7.24e-04 -1.13e-03 2.37e-03
       1.66e-02 4.79e-03 -1.72e-02 -1.72e-02 -7.99e-03 -7.36e-03 -5.68e-03
## 1562
## 1563 3.99e-04 3.19e-03 -3.09e-03 2.70e-03 -1.49e-03 -3.55e-03 -3.90e-03
## 1564 -4.90e-04 8.52e-04 4.29e-03 3.20e-04 -4.72e-03 -1.26e-03 -3.29e-03
       9.28e-04 4.83e-04 -6.90e-04 7.18e-04 1.09e-04 7.48e-04 -6.01e-05
## 1566 3.22e-04 -1.97e-03 -9.82e-03 1.18e-03 1.53e-02 4.40e-03 -1.09e-03
## 1567 -5.82e-03 -4.46e-04 2.77e-03 1.56e-02 1.21e-02 8.73e-03 5.69e-03
## 1568 6.48e-02 2.89e-04 -1.30e-02 -4.23e-02 -8.66e-02 -2.66e-02 -8.93e-03
## 1569 -5.65e-03 -1.25e-02 -3.93e-03 1.96e-02 1.25e-02 8.75e-03 5.10e-03
## 1570 -1.16e-02 -1.79e-02 2.07e-02 -5.48e-03 -2.61e-02 -1.28e-02 1.67e-03
## 1571 -6.95e-03 -7.02e-03 5.40e-03 9.58e-03 1.32e-02 6.74e-03 2.55e-03
## 1572 -2.77e-02 -4.97e-02 4.80e-02 -2.66e-02 -1.99e-02 -1.91e-02 -4.37e-03
## 1573 1.23e-02 3.11e-02 -1.28e-02 -7.92e-02 -2.07e-02 -7.97e-03 -8.55e-03
## 1574 3.44e-02 2.77e-02 -1.79e-02 -6.43e-03 -4.16e-02 -8.12e-03 -5.28e-03
## 1575 -1.46e-04 -3.57e-05 6.05e-05 -1.62e-05 2.64e-04 -1.58e-04 -4.70e-05
## 1576 -1.04e-03 2.90e-03 1.76e-03 -1.64e-03 -1.00e-02 -9.78e-03 -1.74e-03
       1.89e-03 5.71e-03 -4.30e-04 -1.67e-04 -6.68e-03 -7.80e-05 1.56e-03
## 1577
## 1578 -2.56e-03 1.29e-03 1.56e-03 2.86e-03 3.04e-03 2.19e-03 9.26e-04
## 1579 4.85e-03 2.85e-03 -5.37e-03 -3.70e-03 -8.33e-03 -5.43e-03 -1.91e-03
## 1580 6.24e-03 3.13e-02 -6.99e-03 -4.94e-02 -2.82e-02 -2.46e-02 -1.18e-02
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## 1581 4.71e-04 -9.35e-04 4.88e-05 -7.61e-05 9.59e-04 1.22e-03 2.76e-04
## 1582 -3.61e-03 2.24e-03 4.58e-03 1.96e-02 -4.51e-03 6.06e-03 8.05e-03
## 1583 3.27e-03 -8.97e-04 -2.32e-03 1.08e-03 -3.40e-03 -3.23e-03 -1.13e-03
## 1584 5.27e-02 2.99e-03 -6.98e-02 6.51e-03 -4.92e-03 -2.79e-02 -1.67e-02
        6.75e-03 -4.52e-03 -1.45e-05 6.79e-03 -1.16e-02 -7.62e-03 1.62e-03
## 1586 -3.51e-03 2.58e-03 1.22e-03 -1.18e-03 7.53e-04 3.23e-05 -6.15e-04
## 1587 7.63e-04 -2.20e-04 2.61e-04 -2.17e-04 1.73e-04 2.40e-03 3.65e-03
## 1588 2.21e-03 -1.24e-03 3.35e-03 3.67e-03 -1.40e-02 -3.21e-03 9.96e-04
## 1589 -2.93e-02 -8.87e-02 4.57e-02 -3.34e-02 6.37e-03 -2.19e-02 -7.67e-03
## 1590 5.49e-03 2.00e-03 -5.40e-03 -9.85e-03 -4.06e-04 -3.24e-03 -1.25e-03
## 1591 -1.14e-03 -1.60e-03 1.25e-04 -3.56e-03 2.42e-03 2.96e-03 -9.48e-04
## 1592 6.37e-04 -3.88e-04 -5.01e-03 1.03e-03 1.26e-03 -4.47e-03 -1.08e-03
## 1593 -1.12e-03 7.26e-03 4.02e-03 -9.31e-03 1.03e-02 2.35e-03 6.63e-03
## 1594 -9.11e-03 -1.86e-03 9.54e-03 1.48e-02 5.44e-03 -2.77e-03 4.35e-03
## 1595 -2.47e-03 -1.58e-02 1.47e-02 5.04e-02 -3.75e-02 -2.07e-02 -1.26e-02
## 1596 2.36e-02 -1.36e-02 -2.63e-02 -3.23e-02 -1.26e-02 4.73e-03 -1.27e-02
## 1597 -1.70e-03 2.34e-03 -1.37e-03 -2.87e-03 5.34e-03 7.55e-03 1.92e-03
## 1598 -5.69e-04 -7.85e-04 3.15e-04 -1.32e-03 8.63e-04 7.62e-04 -5.59e-04
## 1599 1.29e-03 -1.01e-02 -4.79e-04 -7.42e-03 1.11e-02 1.08e-02 -3.90e-03
## 1600 3.13e-04 -1.45e-04 -2.87e-04 8.75e-05 2.52e-05 -3.20e-04 -1.26e-04
## 1601 3.22e-03 3.93e-04 -7.78e-03 1.07e-02 -1.25e-03 -1.28e-02 -4.65e-03
## 1602 -5.34e-03 4.01e-03 -9.26e-03 -9.50e-03 8.15e-04 1.84e-03 -4.62e-03
## 1603 -5.22e-03 -7.41e-03 1.80e-03 -1.42e-03 5.22e-03 5.68e-03 -1.37e-03
## 1604 -5.04e-03 1.62e-02 -6.54e-03 -4.85e-03 2.25e-02 1.50e-02 -2.81e-03
## 1605 -6.08e-03 -2.14e-03 3.41e-03 -1.22e-02 2.80e-03 1.87e-03 3.65e-03
## 1606 5.61e-03 -5.18e-03 -1.04e-03 -2.47e-03 -1.79e-03 -3.93e-04 -1.38e-04
## 1607 -4.70e-03 -2.09e-03 -8.67e-03 -7.48e-03 1.41e-02 4.58e-03 -4.25e-03
## 1608 -9.28e-03 -2.16e-03 3.67e-03 -1.49e-03 9.62e-03 7.28e-03 -2.57e-03
## 1609 -1.78e-04 8.36e-04 -7.39e-04 -1.36e-03 -1.33e-04 4.75e-04 -3.35e-04
## 1610 1.02e-03 1.34e-02 -2.38e-02 -2.73e-02 3.73e-02 2.69e-02 -1.39e-02
## 1611 8.69e-04 1.02e-03 3.28e-04 1.61e-04 -2.15e-03 -2.43e-03 5.14e-05
## 1612 -8.58e-03 2.96e-03 1.08e-02 -3.73e-03 4.45e-04 1.00e-02 3.88e-03
## 1613 3.73e-03 -2.93e-04 -4.73e-04 1.86e-03 -1.73e-03 -3.72e-03 -3.71e-04
## 1614 2.99e-04 2.47e-04 1.46e-04 -3.21e-04 -7.42e-04 5.87e-04 -1.19e-04
## 1615 -1.57e-03 -2.61e-03 -2.32e-03 -3.32e-03 3.62e-03 3.12e-03 -1.19e-03
## 1616 1.75e-03 -4.67e-03 -1.59e-02 -1.20e-02 1.64e-02 9.50e-03 -1.04e-02
## 1617 1.86e-03 -5.68e-04 5.37e-04 1.22e-03 7.14e-04 2.82e-03 -1.88e-03
## 1618 -7.93e-04 1.77e-03 -5.45e-03 3.78e-03 2.63e-03 1.27e-03 -4.33e-03
## 1619 -1.25e-04 -3.83e-05 -2.26e-04 -2.99e-04 1.78e-04 -5.43e-05 -6.21e-05
## 1620 9.46e-04 -4.91e-03 -4.80e-03 -9.39e-03 5.98e-03 1.27e-02 1.25e-03
## 1621 -3.44e-02 -6.11e-02 3.59e-03 -2.61e-02 2.74e-02 -4.73e-03 -2.33e-02
## 1622 -1.35e-02 9.69e-04 2.28e-02 1.82e-03 -7.11e-03 5.14e-03 5.12e-03
## 1623 8.70e-04 -2.51e-03 1.04e-02 -4.73e-03 4.93e-03 1.38e-02 4.51e-03
## 1624 2.75e-04 1.17e-03 -1.87e-04 6.20e-04 -1.10e-03 1.11e-04 -9.47e-05
## 1625 -1.17e-02 -1.12e-03 -5.62e-03 -1.15e-02 3.35e-02 2.79e-02 9.38e-04
## 1626 8.82e-04 -1.14e-03 -9.21e-04 -1.77e-03 2.36e-04 -3.30e-04 -6.08e-04
## 1627
       1.70e-04 -7.36e-03 -2.85e-03 -4.43e-03 4.68e-03 5.98e-03 -1.23e-03
## 1628 -2.31e-03 -5.19e-03 6.22e-03 -9.47e-03 7.90e-03 9.26e-03 -9.53e-04
## 1629 -2.81e-02 -2.13e-03 2.52e-02 1.12e-02 -1.31e-02 -1.34e-03 4.04e-03
## 1630 -3.69e-03 -1.02e-02 -3.30e-03 -4.34e-03 5.13e-03 1.46e-03 -4.06e-03
## 1631 -3.75e-03 -1.04e-02 1.36e-03 -1.07e-02 1.84e-02 1.94e-02 2.29e-03
## 1632 -1.00e-02 1.93e-03 7.32e-03 2.80e-03 1.37e-02 1.40e-02 2.60e-03
## 1633 -6.01e-02 6.37e-03 3.03e-02 4.05e-02 9.68e-03 -1.08e-02 -7.53e-03
## 1634 -9.76e-03 -1.04e-03 -8.32e-03 -2.60e-02 8.03e-03 1.74e-02 -6.11e-03
```

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## 1635 -1.27e-02 -1.16e-02 4.10e-03 -1.92e-02 2.15e-02 2.94e-02 2.91e-03
## 1636 -1.01e-02 -1.60e-03 1.34e-02 9.49e-03 2.51e-03 4.22e-03 -1.79e-03
## 1637 2.63e-05 -1.02e-02 -9.55e-04 3.61e-03 1.10e-03 -4.27e-03 1.86e-03
## 1638 4.64e-03 2.83e-03 -1.15e-02 2.25e-04 2.55e-03 2.11e-03 -3.17e-03
## 1639 -7.40e-03 -6.93e-03 6.04e-03 -8.48e-03 3.70e-03 1.64e-02 1.71e-03
## 1640 -4.73e-03 2.65e-03 8.21e-04 -3.61e-03 2.87e-03 1.14e-03 -1.59e-03
## 1641 -1.13e-02 -1.93e-03 6.77e-03 -1.04e-02 1.03e-03 1.59e-02 4.66e-03
## 1642 -2.19e-03 -8.18e-04 -5.01e-04 -4.13e-04 3.04e-03 3.34e-04 -1.84e-03
## 1643 1.13e-03 -6.22e-02 4.60e-03 -1.59e-02 2.69e-02 1.39e-02 -7.35e-03
## 1644 -7.30e-03 -5.61e-03 -3.19e-03 -1.42e-02 -2.52e-03 9.18e-04 -3.07e-03
## 1645 -2.67e-03 -2.07e-03 1.71e-03 1.83e-03 2.07e-03 1.11e-03 -1.62e-03
## 1646 -2.73e-03 9.26e-04 2.28e-03 -5.11e-04 3.88e-04 1.05e-03 2.77e-04
## 1647 -1.21e-04 1.30e-05 -3.84e-04 -2.17e-04 1.05e-04 -1.10e-04 -1.30e-04
## 1648 -2.56e-02 -1.00e-02 2.35e-02 1.90e-03 2.03e-02 1.80e-02 5.66e-03
## 1649 -3.83e-03 -5.11e-03 -8.65e-03 -1.08e-02 4.11e-03 1.36e-03 -6.64e-03
## 1650 2.61e-04 -1.47e-03 -3.76e-03 -2.28e-03 2.89e-03 2.33e-03 -4.41e-05
## 1651 -6.67e-03 -8.35e-03 5.07e-03 7.63e-03 3.07e-03 6.35e-03 -6.06e-04
## 1652 1.04e-04 -3.16e-03 1.43e-03 -6.45e-04 1.07e-03 5.92e-04 -3.60e-04
## 1653 -2.19e-03 -3.86e-04 1.63e-03 5.67e-04 1.09e-03 4.54e-04 4.80e-04
## 1654 -4.55e-03 2.22e-04 -8.08e-04 -3.18e-03 3.79e-03 8.47e-04 -2.41e-03
## 1655 -1.43e-02 -2.75e-03 1.71e-02 -8.35e-03 3.29e-03 1.88e-02 -2.25e-03
## 1656 4.54e-02 5.48e-02 -4.33e-02 -6.33e-02 8.86e-04 2.49e-02 -1.91e-03
## 1657 -9.77e-03 -8.12e-04 -3.61e-03 6.94e-03 -1.15e-04 -9.33e-04 -2.87e-03
## 1658 -2.65e-02 -5.88e-03 -3.06e-03 -1.51e-02 1.04e-02 7.63e-03 -1.08e-02
## 1659 -1.91e-02 -7.02e-03 1.13e-02 -9.69e-03 1.18e-02 1.22e-02 1.73e-03
## 1660 -1.26e-02 -1.26e-03 2.80e-03 -1.68e-02 6.04e-03 1.17e-03 -7.61e-03
## 1661 -1.30e-02 -4.53e-03 4.27e-03 -1.10e-02 2.46e-02 2.94e-02 5.91e-03
## 1662 5.56e-04 -3.97e-03 -2.67e-03 -5.80e-03 1.31e-02 7.83e-03 -2.77e-03
## 1663 -5.42e-03 2.31e-03 -1.22e-03 -4.24e-03 5.06e-03 4.67e-03 -1.33e-03
## 1664 -2.10e-04 -9.53e-05 3.11e-05 -1.11e-04 -4.45e-05 -1.55e-04 -1.69e-04
## 1665 -3.66e-04 -1.55e-03 -1.04e-03 -2.06e-03 1.37e-03 1.82e-03 -2.33e-04
## 1666 -1.93e-02 -7.50e-03 1.03e-02 -6.10e-03 1.76e-02 9.55e-03 1.12e-03
## 1667 -1.17e-02 -2.06e-02 -9.76e-04 -7.60e-03 1.19e-02 1.16e-02 -1.41e-02
## 1668 3.93e-03 -1.39e-03 -5.96e-03 7.46e-04 6.26e-04 -3.18e-03 -1.10e-03
## 1669 -7.06e-04 -5.59e-04 7.27e-04 -4.00e-04 3.74e-04 5.16e-04 -2.36e-04
## 1670 -1.79e-03 -3.85e-03 -1.13e-03 -3.74e-03 1.93e-03 7.20e-04 -8.72e-04
## 1671 -1.13e-04 -3.43e-04 -1.41e-04 -6.24e-05 4.43e-04 2.39e-04 -2.30e-04
## 1672 4.52e-03 -5.74e-03 -6.84e-03 -1.09e-03 4.72e-03 9.39e-04 3.37e-04
        1.11e-03 -5.07e-04 -2.63e-04 2.13e-04 9.02e-04 -2.32e-03 -2.45e-04
## 1674 6.46e-05 1.65e-03 3.34e-03 6.27e-03 -2.47e-03 -5.90e-03 8.35e-04
## 1675 5.21e-04 -7.32e-05 2.41e-04 6.35e-04 1.78e-04 3.65e-04 -2.99e-04
## 1676 -3.02e-04 -2.73e-03 -3.36e-03 -2.52e-03 3.22e-03 1.75e-03 -1.44e-03
## 1677
       1.95e-02 1.89e-03 -1.96e-02 1.93e-03 -1.19e-02 -1.16e-02 -3.72e-03
## 1678 -1.76e-03 -6.87e-04 -1.98e-03 -2.17e-03 2.26e-03 -1.69e-03 2.19e-03
## 1679 -1.43e-03 8.15e-04 1.10e-03 5.37e-04 -2.79e-04 1.53e-03 2.23e-04
## 1680 1.02e-03 -1.47e-03 8.17e-04 -2.38e-03 -1.89e-03 5.55e-04 -1.36e-04
## 1681 -8.05e-03 -1.56e-02 -7.54e-04 -9.86e-03 4.69e-03 1.15e-02 -2.35e-03
## 1682 5.52e-03 -2.57e-02 -1.46e-03 -1.77e-02 1.32e-02 1.10e-02 -9.65e-03
## 1683 2.41e-03 -1.63e-03 -1.57e-02 -8.42e-03 7.64e-03 1.06e-02 -6.18e-03
       3.71e-02 8.13e-03 -2.60e-03 2.35e-04 -4.76e-02 -6.23e-02 -4.91e-03
## 1684
       1.08e-02 -2.29e-03 -1.37e-02 -1.68e-02 2.13e-02 2.09e-02 6.49e-03
## 1686 -2.65e-02 -1.50e-02 -1.53e-02 -7.47e-03 2.06e-02 2.11e-02 -5.98e-03
## 1687 -3.75e-02 -2.42e-02 3.37e-03 3.32e-02 -3.49e-02 -4.12e-02 -4.88e-02
## 1688 1.02e-02 -2.88e-03 -3.72e-03 -1.47e-02 -1.56e-02 2.18e-03 -6.42e-04
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3.80e-04 -5.00e-04 -1.00e-03 4.84e-05 1.80e-03 5.90e-04 3.86e-04
        1.79e-02 2.58e-03 -3.05e-03 -1.83e-03 -3.66e-03 -4.75e-03 -7.94e-03
        1.30e-02 3.16e-03 1.02e-02 -4.10e-03 -1.11e-02 -1.97e-02 -6.93e-03
## 1692
        1.90e-02 1.35e-03 -1.91e-03 -6.16e-02 -2.27e-02 -1.07e-02 -2.08e-03
## 1693 -3.10e-03 5.95e-05 8.70e-04 1.33e-03 3.71e-03 2.30e-03 -3.09e-04
       4.15e-03 2.72e-03 -4.49e-04 3.21e-03 -3.64e-03 -4.67e-03 -2.80e-02
        2.55e-02 2.08e-02 -3.00e-02 -7.37e-02 2.08e-03 8.40e-03 -4.89e-03
        4.90e-03 -1.89e-03 -8.87e-04 2.31e-03 -7.52e-03 -1.82e-03 1.99e-03
## 1696
## 1697
        2.85e-03 -1.50e-03 -7.10e-05 -1.42e-03 -1.67e-04 1.56e-03 1.74e-03
## 1698
       1.30e-03 1.11e-03 -2.13e-03 -2.90e-05 1.17e-04 7.46e-04 6.83e-04
## 1699
       6.86e-03 2.33e-03 1.36e-03 -2.23e-03 -7.12e-03 -5.96e-03 1.16e-03
## 1700 -4.63e-04 1.67e-04 -1.63e-03 6.70e-04 7.15e-04 2.64e-04 -1.16e-03
## 1701
       2.21e-02 -1.49e-02 4.43e-03 -4.17e-03 -7.42e-03 -1.64e-02 -3.53e-03
## 1702 9.54e-03 -2.74e-03 1.97e-03 1.76e-03 -1.03e-02 -1.01e-03 4.69e-03
## 1703 9.61e-04 -3.39e-04 -4.02e-04 2.65e-04 3.47e-04 -1.84e-03 1.38e-04
        3.74e-04 -8.24e-04 3.28e-04 -9.10e-06 5.10e-04 -7.12e-04 -2.45e-04
       3.94e-04 -6.97e-04 8.37e-04 -3.07e-04 -7.18e-04 3.49e-04 -6.33e-04
## 1705
       1.73e-03 -5.49e-03 4.12e-03 -6.65e-04 -1.93e-03 2.83e-04 2.20e-03
## 1707 5.86e-03 -2.81e-03 5.33e-06 -6.12e-03 -7.97e-03 -8.08e-03 4.30e-03
       2.40e-02 -6.67e-02 -2.03e-03 -4.49e-02 4.27e-02 -2.41e-02 -2.29e-03
## 1709 -3.90e-03 3.66e-03 -2.26e-03 3.34e-03 5.79e-03 2.91e-03 -1.61e-03
## 1710 7.51e-03 1.48e-02 -2.86e-02 3.58e-02 1.67e-02 -2.46e-02 -2.95e-02
## 1711 9.92e-04 -3.77e-03 4.58e-03 5.25e-04 -2.01e-03 3.31e-03 -4.11e-03
## 1712 -1.16e-04 -2.34e-03 4.97e-04 5.22e-04 -2.13e-03 -3.31e-03 9.65e-04
## 1713 6.28e-03 -5.31e-04 -3.21e-03 3.23e-04 -7.65e-04 -2.85e-03 -9.70e-04
## 1714 -2.77e-03 6.51e-03 9.46e-03 -4.33e-03 -5.49e-03 7.53e-03 -1.63e-03
## 1715 3.15e-03 -5.82e-03 -2.55e-03 1.05e-05 2.16e-03 -3.02e-03 1.10e-03
## 1716 7.95e-04 3.43e-03 -1.17e-03 1.60e-04 4.55e-04 3.72e-03 -4.85e-06
## 1717 -1.38e-03 2.70e-04 4.37e-03 -3.26e-05 -1.18e-03 7.43e-05 -1.64e-03
## 1718 -5.81e-04 1.07e-03 2.95e-03 1.28e-03 5.36e-04 9.11e-04 -1.46e-03
## 1719 5.22e-04 4.65e-03 -4.77e-03 -1.14e-03 1.95e-03 -2.72e-03 3.34e-03
## 1720 -9.04e-04 1.55e-03 -1.18e-03 5.54e-04 -5.24e-04 9.46e-04 -1.61e-04
## 1721 9.67e-06 -9.35e-07 -2.90e-06 2.38e-05 -1.05e-05 -2.81e-05 4.06e-06
## 1722 -6.22e-04 1.66e-04 5.03e-04 3.27e-05 -4.59e-05 4.37e-04 7.28e-05
## 1723 -1.92e-02 -8.13e-04 1.66e-02 -7.52e-03 -1.70e-02 -9.31e-03 1.29e-03
## 1724 1.69e-03 -4.87e-03 1.26e-02 1.25e-02 -4.25e-03 -7.13e-03 -2.37e-03
## 1725 4.81e-03 5.35e-04 -2.92e-04 1.31e-03 -1.99e-03 -1.66e-03 2.37e-04
## 1726 -2.39e-03 1.95e-03 1.72e-03 -1.68e-04 -1.31e-03 1.02e-03 -5.46e-04
        1.67e-03 1.38e-03 -6.54e-04 5.76e-04 -9.07e-04 -3.07e-04 1.82e-04
## 1728 -3.61e-03 8.69e-03 -6.08e-03 2.95e-03 -5.55e-03 -8.84e-03 2.78e-03
## 1729 2.92e-04 -4.02e-03 2.36e-03 9.66e-04 4.97e-04 -3.83e-03 -1.03e-04
## 1730 -1.14e-03 3.55e-03 2.28e-03 1.60e-03 4.23e-04 -1.93e-03 -5.24e-04
## 1731 3.83e-05 1.26e-04 3.81e-05 1.61e-04 -5.38e-06 5.63e-04 1.29e-04
## 1732 -3.12e-03 -1.79e-03 8.29e-03 7.47e-03 -1.40e-03 -3.64e-04 -6.25e-04
## 1733 -2.41e-04 1.59e-03 -1.29e-03 8.22e-04 5.39e-04 1.14e-03 -1.10e-03
## 1734 1.46e-04 7.99e-04 -1.43e-03 -6.81e-05 5.70e-04 3.25e-04 -6.90e-04
## 1735
        1.44e-03 -2.43e-03 2.58e-03 -2.97e-04 -2.66e-03 -7.52e-04 -2.21e-04
       1.02e-03 -1.70e-03 2.95e-04 -7.87e-04 -6.05e-04 -2.50e-03 7.04e-04
## 1736
## 1737
       8.50e-03 -1.20e-02 -3.24e-03 3.04e-03 -1.44e-03 -6.79e-03 2.42e-03
       4.60e-03 4.63e-03 1.81e-03 3.67e-03 -9.60e-03 -1.66e-02 1.85e-03
## 1738
       5.14e-04 -6.20e-04 -5.24e-05 -1.36e-04 1.22e-04 -2.64e-04 9.94e-05
## 1739
## 1740 1.38e-03 -1.61e-02 7.13e-05 4.93e-03 1.14e-02 -2.28e-02 -1.04e-02
## 1741 -2.86e-03 4.22e-04 -3.29e-03 3.46e-03 1.13e-02 -3.98e-03 -9.80e-04
## 1742 9.80e-04 -1.82e-03 2.61e-03 -5.36e-04 -1.23e-03 1.58e-03 -5.23e-03
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## 1743 1.27e-02 -6.22e-03 1.86e-02 1.79e-02 -5.75e-03 -2.76e-02 -2.19e-02
## 1744 1.14e-03 -6.77e-03 3.83e-03 -1.56e-03 -2.71e-03 1.27e-03 -1.15e-04
## 1745 5.15e-03 3.05e-04 -5.09e-04 3.13e-03 8.30e-05 -9.06e-03 -4.35e-04
## 1746 1.25e-03 3.56e-03 -1.05e-02 -5.65e-03 3.15e-03 2.96e-03 -1.72e-03
## 1747 -1.02e-03 5.87e-03 1.95e-03 -6.77e-04 3.17e-03 -2.92e-04 9.10e-03
## 1748 8.45e-03 -8.04e-04 9.95e-03 -1.43e-02 -2.85e-02 5.46e-03 2.49e-03
## 1749 -3.10e-03 3.01e-04 -5.92e-04 3.67e-03 6.61e-04 5.83e-03 9.51e-04
## 1750 8.02e-05 -6.60e-05 2.37e-04 6.58e-05 -2.63e-04 -2.92e-04 5.03e-05
## 1751 -8.35e-03 -1.19e-02 1.36e-03 5.16e-03 6.85e-03 -1.94e-03 2.19e-03
## 1752 1.59e-02 6.55e-04 -5.43e-03 -5.33e-03 -3.24e-03 1.82e-04 2.09e-03
## 1753 2.22e-02 -2.01e-02 -8.25e-04 -2.15e-02 -5.69e-03 -4.09e-03 -4.71e-03
## 1754 1.82e-03 3.71e-03 3.51e-03 -4.76e-03 -5.44e-03 -4.03e-03 7.22e-04
## 1755 6.49e-03 -6.05e-03 -5.68e-03 -4.01e-03 -5.48e-04 -5.28e-03 -7.51e-04
## 1756 -7.91e-03 2.29e-03 -1.42e-04 -2.52e-03 -3.37e-04 5.25e-03 7.27e-03
## 1757 -7.56e-03 2.41e-03 2.82e-03 1.22e-03 1.68e-03 4.64e-03 1.44e-03
## 1758 7.31e-03 -5.54e-03 -1.31e-03 -3.83e-03 8.90e-04 -4.61e-03 -1.29e-03
## 1759 -1.69e-03 2.90e-03 -5.92e-03 3.05e-03 3.27e-03 8.97e-04 -3.58e-03
## 1760 -3.43e-03 -1.68e-03 6.89e-04 1.33e-03 1.53e-03 4.55e-04 7.71e-06
## 1761 -6.08e-04 8.05e-04 -1.87e-03 2.62e-03 2.44e-04 -2.12e-04 -1.41e-03
## 1762 -1.44e-04 1.60e-03 -1.37e-03 -1.85e-04 8.81e-04 8.95e-04 -4.33e-04
## 1763 2.28e-03 -3.46e-03 7.53e-03 4.09e-03 -4.62e-03 -4.95e-04 1.81e-03
## 1764 -7.65e-03 -3.81e-03 2.08e-02 -8.79e-03 -1.65e-02 5.32e-04 8.16e-03
## 1765 3.73e-03 2.77e-03 -1.31e-02 2.73e-04 9.23e-03 6.68e-03 2.75e-04
## 1766 -3.06e-03 -6.44e-05 5.60e-03 -1.18e-03 -2.13e-03 -1.36e-03 1.27e-03
## 1767 -3.65e-05 -4.40e-04 2.07e-04 3.00e-05 -5.91e-04 -1.19e-03 -5.59e-04
## 1768 3.42e-03 -3.92e-03 2.60e-03 -4.13e-03 -3.02e-03 2.70e-04 1.63e-03
## 1769 -2.88e-04 -5.87e-04 6.87e-04 6.36e-04 3.93e-04 -9.60e-04 -6.21e-04
## 1770 9.71e-05 -5.15e-04 -1.14e-04 7.26e-05 2.80e-04 -3.49e-04 -2.68e-04
## 1771 6.70e-03 1.67e-02 -9.24e-03 -5.37e-03 -2.07e-02 1.68e-02 1.08e-02
## 1772 -9.83e-04 -3.37e-03 9.88e-04 -1.31e-03 -2.85e-03 2.75e-03 1.74e-03
## 1773 -6.73e-03 5.10e-04 -4.72e-05 -5.94e-03 5.58e-03 1.35e-02 5.31e-03
## 1774 5.70e-03 -2.91e-02 -1.22e-02 1.27e-03 2.19e-02 -2.11e-02 -1.23e-02
## 1775 -5.10e-03 -2.27e-03 1.30e-02 -6.11e-03 1.85e-04 2.39e-02 1.04e-02
## 1776 -1.04e-03 -2.77e-04 1.51e-03 1.16e-03 -1.11e-03 1.12e-03 3.07e-04
## 1777 -4.84e-03 -1.84e-02 -7.91e-03 -5.78e-02 2.14e-02 8.15e-02 3.06e-02
## 1778 -3.75e-03 -2.06e-05 1.88e-03 5.05e-04 6.79e-04 1.49e-03 1.69e-03
## 1779 2.43e-03 -6.22e-03 -6.02e-03 -1.68e-03 -1.94e-03 1.01e-03 1.85e-03
## 1780 -2.19e-03 3.07e-03 -5.97e-04 5.00e-03 1.20e-02 -1.02e-02 -7.69e-03
        1.62e-05 -4.20e-03 6.86e-04 -2.14e-04 -4.54e-03 -6.23e-03 -7.70e-04
## 1782 2.44e-04 -4.69e-03 1.70e-02 -3.67e-03 -2.30e-02 2.48e-02 1.07e-02
## 1783 2.09e-03 -9.04e-04 -1.50e-03 5.55e-03 4.28e-03 -1.02e-02 -5.18e-03
## 1784 -5.18e-03 -4.11e-03 5.50e-03 5.15e-03 1.54e-02 -1.02e-02 -4.78e-03
## 1785 1.58e-05 -5.32e-05 -7.96e-06 -5.27e-05 -2.14e-06 -8.17e-05 -3.30e-05
## 1786 -3.69e-03 -3.84e-03 6.98e-03 5.51e-03 -1.23e-03 9.09e-03 3.60e-03
## 1787 3.42e-03 1.39e-02 -1.03e-03 -5.87e-03 5.17e-04 2.45e-02 1.08e-02
## 1788 -1.77e-03 2.29e-04 1.72e-03 7.67e-03 8.55e-04 -1.45e-02 -4.04e-03
## 1789 3.60e-03 -6.20e-03 -2.78e-03 4.09e-04 1.08e-02 -2.03e-02 -9.71e-03
## 1790 -1.08e-04 -1.20e-03 -4.28e-05 -2.35e-03 -4.71e-04 2.16e-03 6.02e-04
## 1791 -3.01e-04 -1.00e-04 2.03e-04 1.09e-04 6.12e-07 1.77e-04 2.48e-05
## 1792 1.77e-02 -8.13e-03 -5.50e-03 1.14e-02 -7.61e-04 -1.22e-02 -1.19e-02
## 1793 -5.36e-03 1.16e-03 2.59e-03 -2.30e-03 6.08e-03 -1.73e-03 2.10e-04
## 1794 -6.72e-03 -2.85e-03 5.17e-03 3.75e-03 5.34e-03 -9.40e-04 4.71e-03
## 1795 1.26e-03 -4.43e-05 6.98e-04 -1.59e-03 -1.02e-03 2.28e-03 4.26e-03
## 1796 7.39e-02 -6.49e-03 -3.00e-02 1.44e-03 -3.17e-02 3.59e-02 1.83e-02
```

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## 1797 -7.21e-02 1.92e-02 -6.93e-02 9.11e-02 3.92e-02 -1.20e-01 -4.76e-02
## 1798 2.32e-03 -6.41e-03 -8.33e-03 -1.70e-03 4.87e-03 3.07e-03 1.93e-03
## 1799 4.78e-03 -6.30e-03 -2.52e-03 -1.06e-03 -2.63e-03 -8.39e-04 -1.27e-03
## 1800 9.72e-03 -1.01e-02 -1.18e-03 5.00e-03 2.25e-03 -2.17e-03 -1.65e-03
## 1801 -9.74e-03 -9.67e-04 6.00e-05 3.05e-03 6.10e-03 -1.48e-03 -9.84e-04
## 1802 3.02e-03 4.61e-03 -8.86e-03 -7.81e-03 5.24e-03 -5.07e-03 -9.04e-04
## 1803 -9.26e-03 -6.60e-03 -4.49e-03 2.85e-03 1.09e-02 2.21e-03 5.17e-04
## 1804 -7.54e-03 -4.38e-04 1.14e-02 -9.30e-03 -8.82e-03 5.69e-04 3.65e-03
## 1805 -4.11e-04 1.50e-04 2.51e-04 -7.26e-04 -1.57e-04 3.53e-05 9.84e-05
## 1806 -6.51e-05 -2.95e-05 2.09e-05 2.39e-05 8.65e-06 -2.92e-05 -1.64e-06
## 1807 -1.11e-02 -1.06e-02 -4.28e-03 -2.50e-02 2.01e-02 3.75e-03 4.13e-03
## 1808 2.89e-04 1.00e-05 1.77e-03 2.19e-03 -7.48e-04 4.22e-04 1.49e-03
## 1809
       9.84e-03 2.44e-03 1.31e-02 -4.10e-03 -2.25e-02 -2.10e-03 -3.88e-03
## 1810 -9.88e-04 -5.16e-03 1.08e-02 1.52e-02 -1.98e-02 -1.82e-02 -7.31e-03
## 1811 3.95e-04 -9.75e-05 -5.21e-04 9.20e-05 -7.39e-05 -3.61e-04 -2.03e-04
        1.87e-02 1.06e-02 5.89e-03 1.27e-02 -2.23e-02 7.67e-03 9.30e-03
## 1812
## 1813 2.52e-02 1.45e-02 -3.67e-02 1.05e-03 2.04e-02 1.04e-04 -8.02e-03
## 1814 -1.33e-03 9.84e-04 1.69e-04 1.86e-03 -7.88e-05 -1.41e-03 -2.50e-04
## 1815 -6.98e-03 -2.78e-03 7.78e-04 -1.60e-02 6.60e-03 -6.72e-03 -2.56e-03
## 1816 8.47e-02 -2.69e-02 -3.15e-02 2.85e-02 -1.22e-02 -1.24e-02 -1.80e-02
## 1817 -1.83e-02 9.23e-03 -3.39e-02 1.15e-02 -2.30e-03 -3.01e-02 -7.17e-02
## 1818 -1.18e-01 4.14e-02 5.46e-02 7.81e-02 -8.07e-02 -9.62e-02 -1.14e-01
## 1819 1.69e-03 -5.81e-03 3.28e-03 -1.87e-03 1.22e-03 4.01e-03 9.31e-04
## 1820 -5.64e-02 -5.05e-02 5.74e-02 6.72e-02 1.45e-02 -3.73e-02 -2.79e-03
## 1821 -2.57e-03 -9.43e-03 2.14e-03 2.66e-02 -3.63e-03 -1.30e-02 2.81e-03
## 1822 1.40e-02 -1.61e-03 4.15e-03 -1.76e-02 -1.09e-02 8.27e-03 -4.58e-03
## 1823 -3.01e-03 -8.38e-03 3.85e-03 3.90e-03 1.71e-02 -8.19e-04 1.60e-03
## 1824 5.53e-04 -2.10e-04 -2.69e-04 -4.83e-04 2.98e-04 3.10e-04 4.43e-04
## 1825 -2.06e-03 1.15e-02 -1.42e-03 -1.93e-03 -9.19e-03 -3.70e-03 8.74e-04
## 1826 -5.73e-02 4.94e-02 1.42e-02 3.48e-02 -1.04e-02 -7.70e-02 -1.07e-02
       5.07e-02 -3.14e-02 3.27e-02 1.51e-02 -5.53e-02 1.21e-02 -5.67e-03
## 1827
## 1828
       1.88e-03 -1.82e-03 2.97e-04 -5.91e-04 6.43e-04 2.87e-03 1.34e-04
       3.61e-02 4.54e-03 1.97e-03 7.98e-03 -2.92e-02 1.85e-02 2.56e-03
## 1830 5.04e-02 7.99e-03 -3.70e-02 -3.46e-02 -8.74e-03 1.82e-02 -6.69e-03
## 1831 -7.14e-04 7.30e-02 -4.64e-02 -4.71e-02 3.70e-02 -1.51e-02 -2.28e-02
## 1832 9.51e-03 5.08e-03 -9.58e-03 -7.29e-03 1.77e-03 -9.91e-03 -8.09e-03
## 1833 -2.88e-02 6.23e-03 -1.06e-02 2.01e-02 4.25e-03 -2.20e-02 3.25e-03
## 1834 -2.65e-02 7.41e-03 -1.30e-02 1.76e-02 2.19e-02 -1.54e-02 4.19e-03
## 1835 -1.36e-02 2.23e-02 -1.98e-02 -7.09e-03 2.55e-02 1.09e-02 2.24e-03
## 1836 4.01e-03 -1.95e-03 3.68e-04 -8.69e-04 -2.23e-03 7.59e-04 -1.45e-05
## 1837 6.05e-04 -3.78e-04 -2.91e-04 6.00e-04 -1.11e-03 -5.20e-04 -1.58e-04
## 1838 -9.06e-03 -3.52e-04 5.45e-03 -4.24e-03 2.82e-04 -3.22e-03 9.74e-04
        1.45e-03 -2.64e-03 5.10e-03 2.74e-04 -1.19e-03 1.93e-03 1.67e-04
## 1840 5.46e-04 -1.19e-04 -8.97e-04 -9.09e-04 1.01e-03 2.30e-03 -6.91e-03
## 1841 -9.94e-03 4.03e-03 1.98e-03 -6.92e-03 5.13e-03 -2.10e-03 2.67e-03
## 1842 1.28e-02 -1.15e-03 -1.08e-03 3.85e-03 -1.14e-02 -6.70e-03 -2.72e-03
## 1843 -1.23e-04 2.24e-03 -1.96e-03 5.56e-03 7.89e-03 -3.59e-03 2.57e-03
## 1844 1.89e-02 -3.43e-03 -8.53e-03 -1.56e-02 -5.58e-03 3.69e-03 1.33e-03
## 1845 1.86e-02 1.80e-03 -1.20e-02 -5.77e-03 1.06e-03 -2.99e-03 8.15e-03
## 1846 -1.42e-02 -4.05e-02 6.03e-02 5.77e-03 -4.77e-02 -5.22e-03 6.02e-03
## 1847 -4.15e-03 9.66e-04 3.70e-03 -1.06e-02 -1.28e-03 1.24e-03
                                                                  1.16e-03
## 1848 4.84e-02 -9.11e-03 -1.39e-02 -3.68e-02 -1.32e-02 1.99e-02 2.45e-02
## 1849 -2.51e-02 1.99e-02 2.30e-03 5.46e-02 -2.73e-02 -3.02e-02 -6.79e-02
## 1850 -1.15e-02 -1.38e-02 7.33e-03 2.32e-03 5.79e-03 -1.04e-03 3.09e-03
```

```
## 1851 2.70e-03 1.12e-03 -1.79e-03 -3.76e-04 2.73e-04 8.97e-04 -1.20e-04
## 1852 2.02e-02 1.10e-03 -4.77e-03 -8.20e-03 -1.19e-02 -8.74e-04 -1.45e-03
       2.55e-02 -4.35e-02 6.86e-04 6.31e-04 -2.81e-02 -1.29e-02 -1.34e-02
       1.49e-03 7.46e-04 -4.16e-03 -2.62e-03 -2.45e-04 -3.39e-03 -2.88e-03
## 1854
## 1855 -8.34e-04 1.86e-03 -6.10e-03 5.37e-03 2.32e-03 -2.72e-03 -1.81e-04
       3.40e-02 8.61e-03 -2.88e-02 1.69e-02 1.18e-02 2.16e-02 6.86e-03
## 1857 -6.60e-05 -1.66e-05 5.27e-05 7.86e-05 -6.56e-05 2.74e-05 6.32e-05
## 1858 -1.10e-02 -2.49e-02 -2.06e-03 4.07e-02 6.32e-02 9.49e-04 1.27e-03
## 1859 -2.31e-02 1.06e-02 -2.99e-03 -5.13e-03 2.62e-02 -1.12e-02 4.15e-03
## 1860 9.99e-03 7.05e-03 -7.30e-03 -6.63e-03 -4.91e-03 3.69e-04 -4.61e-04
## 1861 -8.26e-03 -2.64e-03 3.21e-03 2.12e-03 2.98e-03 -1.18e-04 -7.64e-03
       3.31e-03 7.24e-04 4.41e-04 1.47e-04 -9.55e-04 -5.94e-03 -3.09e-03
## 1862
## 1863
       3.56e-04 2.25e-02 -4.80e-03 2.39e-03 9.71e-03 1.71e-02 7.20e-03
       1.39e-03 1.77e-03 -4.81e-03 -7.94e-05 2.31e-03 -1.64e-03 -1.16e-03
## 1864
## 1865 -3.84e-03 2.86e-03 -8.41e-04 4.04e-03 1.24e-04 -2.42e-03 2.89e-03
## 1866
       8.31e-02 3.29e-02 -5.32e-02 -6.41e-03 -2.02e-02 -3.21e-02 -3.60e-02
       8.24e-05 6.70e-04 7.52e-04 4.30e-04 -4.37e-04 1.46e-04 3.99e-04
## 1867
## 1868 -1.04e-01 2.77e-02 -5.50e-02 9.49e-02 3.14e-02 -1.04e-01 -4.69e-02
       1.67e-04 2.86e-04 8.97e-04 6.74e-04 -1.12e-04 3.42e-04 2.69e-04
## 1869
## 1870 4.39e-03 -3.48e-04 -2.08e-03 -1.61e-03 4.17e-05 3.74e-04 -1.91e-03
## 1871 -7.33e-04 -6.56e-04 5.28e-04 -1.52e-03 8.44e-04 2.82e-04 4.74e-05
## 1872 2.75e-03 9.53e-04 8.49e-03 2.53e-03 -5.14e-03 -9.62e-04 9.33e-05
## 1873 1.85e-05 -1.79e-04 9.50e-05 1.49e-04 -2.99e-04 -1.39e-04 -4.05e-05
## 1874 6.56e-03 1.56e-03 -1.49e-03 -2.00e-03 -3.92e-03 3.22e-03 -1.64e-03
## 1875 -4.86e-02 9.31e-02 -1.81e-02 -3.62e-03 3.87e-02 -2.85e-02 -1.78e-02
## 1876 -5.13e-03 1.35e-02 5.79e-03 4.00e-03 1.19e-02 2.09e-03 -3.49e-03
## 1877 -1.76e-02 2.32e-03 1.25e-02 1.16e-02 5.78e-03 -8.93e-03 2.74e-03
## 1878 -1.66e-02 -1.40e-02 1.97e-02 -1.41e-02 6.54e-03 1.44e-02 1.13e-02
## 1879 -4.14e-03 -3.99e-04 4.62e-04 1.19e-02 5.31e-03 -2.34e-04 -8.20e-04
## 1880 -2.94e-03 -8.42e-03 4.91e-03 -8.73e-03 -1.14e-02 -5.82e-03 -3.77e-03
       1.19e-03 4.39e-04 -1.25e-03 9.94e-05 1.89e-03 -1.41e-04 -3.54e-04
## 1882 6.23e-03 -2.80e-02 -1.34e-02 2.26e-02 1.53e-03 5.53e-03 1.12e-02
## 1883
       6.64e-03 7.52e-04 -1.20e-03 -2.48e-04 -2.85e-03 -2.57e-03 2.22e-03
       3.00e-02 -1.42e-02 -1.37e-02 -3.09e-02 6.17e-02 3.96e-02 -1.42e-03
## 1884
## 1885 -6.30e-03 5.76e-03 -5.08e-05 8.55e-03 2.34e-03 -7.55e-03 -1.44e-03
## 1886 9.65e-03 4.05e-03 -7.01e-03 -7.81e-03 2.32e-03 1.98e-03 -1.66e-04
## 1887 2.76e-04 -4.61e-05 -5.56e-04 3.30e-05 6.01e-04 2.12e-04 1.17e-05
## 1888 -2.97e-02 8.30e-03 2.54e-02 3.66e-03 -2.46e-02 -5.67e-03 -1.82e-02
## 1889 -4.93e-03 1.36e-02 1.10e-02 -3.22e-03 6.35e-04 1.02e-02 7.67e-03
## 1890 -5.99e-03 2.63e-03 1.94e-03 -7.73e-03 -2.59e-04 -6.27e-03 -2.62e-03
       1.78e-02 -7.26e-03 2.95e-03 5.23e-02 -3.26e-03 5.34e-03 1.82e-03
## 1892 2.47e-02 -3.42e-02 -6.31e-03 -2.59e-03 3.05e-02 2.26e-02 5.95e-03
## 1893 -2.37e-02 -1.86e-03 4.30e-03 2.09e-02 -1.45e-02 -2.61e-02 1.01e-03
       4.01e-06 -2.26e-05 1.24e-05 -1.36e-06 -7.85e-06 9.56e-06 -9.66e-07
## 1894
## 1895
       3.29e-03 2.48e-03 2.17e-04 4.49e-04 -1.53e-03 -9.03e-04 -3.61e-04
        7.84e-03 -1.02e-02 1.55e-02 -1.37e-02 -1.27e-02 7.67e-03 -9.16e-04
## 1896
## 1897
       6.46e-03 -9.91e-03 -1.70e-02 -6.68e-03 2.16e-02 -5.96e-04 6.78e-03
## 1898
       1.88e-03 2.08e-02 -3.09e-02 5.25e-04 1.10e-02 -1.68e-02 6.73e-03
       3.18e-03 -1.53e-03 -2.58e-03 -7.65e-03 4.93e-03 6.02e-03 4.13e-03
## 1900 -3.02e-03 9.61e-03 4.05e-03 1.18e-03 2.62e-03 6.23e-03 6.02e-03
       4.10e-02 -1.35e-02 -3.89e-02 2.18e-02 6.96e-03 5.07e-03 -5.27e-03
## 1901
## 1902 2.28e-02 -8.13e-03 -2.05e-02 -1.62e-02 3.77e-02 6.25e-03 -7.54e-03
## 1903 1.43e-02 2.08e-03 -3.40e-03 -7.56e-03 -5.32e-03 1.07e-03 2.12e-03
## 1904 -5.68e-02 4.73e-02 4.35e-02 5.26e-02 -1.54e-03 -7.60e-03 2.20e-02
```

```
## 1905 -4.21e-03 6.31e-03 8.09e-04 1.15e-03 3.41e-03 -1.37e-03 -1.20e-03
## 1906 -1.54e-04 -1.77e-03 1.81e-03 1.29e-02 -2.22e-03 -2.23e-03 1.10e-03
## 1907 1.98e-03 -6.74e-05 -5.16e-04 -1.25e-03 -5.38e-04 9.07e-04 -5.32e-04
## 1908 6.92e-03 -1.09e-02 -4.14e-03 -2.36e-03 7.22e-03 5.26e-03 -2.89e-03
## 1909 -1.71e-03 -7.69e-05 5.10e-03 -2.92e-04 -7.74e-03 3.06e-04 6.40e-04
## 1910 1.03e-02 -6.16e-04 4.27e-03 -8.21e-03 -8.47e-03 7.68e-04 -2.78e-03
## 1911 -8.18e-03 8.46e-03 -9.78e-03 2.77e-02 2.31e-02 1.30e-03 5.85e-04
## 1912 2.41e-02 6.88e-03 -7.11e-03 3.89e-02 -1.88e-02 -1.49e-02 1.27e-02
## 1913 1.56e-02 -6.60e-03 -1.11e-02 -1.16e-02 -5.98e-03 4.49e-03 -5.47e-03
## 1914 6.09e-02 -5.99e-02 -3.10e-02 4.39e-02 -4.32e-03 2.56e-02 4.75e-02
## 1915 -9.02e-03 -7.90e-05 -1.28e-02 8.14e-03 2.02e-02 -6.96e-03 -1.44e-02
## 1916 -9.20e-02 1.47e-02 4.42e-02 7.37e-02 -3.86e-02 -6.83e-02 -1.29e-02
## 1917
       1.00e-03 -5.37e-03 -2.10e-04 -2.85e-03 7.78e-04 2.95e-04 -1.43e-03
## 1918 9.03e-03 -1.12e-02 -5.57e-03 -1.09e-04 -1.92e-03 3.92e-03 3.13e-03
## 1919 -1.16e-02 1.90e-03 9.09e-03 7.94e-03 3.55e-03 -1.70e-03 1.92e-03
## 1920 -6.44e-03 -8.86e-03 -2.58e-03 -1.14e-02 9.61e-03 1.18e-02 -6.46e-04
## 1921 1.72e-03 1.74e-02 -2.65e-02 -2.37e-02 2.38e-02 4.69e-03 -6.49e-04
## 1922 -6.48e-03 8.83e-03 2.78e-02 -3.53e-02 -3.44e-02 -2.27e-03 1.47e-03
## 1923 6.35e-02 1.53e-02 -3.67e-02 1.11e-02 -7.84e-03 2.30e-02 5.07e-03
## 1924 -5.29e-04 -1.78e-04 5.73e-04 5.18e-04 -3.86e-05 6.16e-05 -1.39e-04
## 1925 4.97e-03 4.81e-03 1.33e-02 -2.49e-02 -2.37e-02 1.54e-03 5.41e-02
## 1926 -1.49e-03 -2.47e-03 -2.77e-03 1.95e-02 2.48e-02 -2.10e-02 -1.39e-02
## 1927 1.64e-02 1.77e-03 1.74e-03 -7.10e-03 -2.47e-03 3.31e-03 -1.95e-03
        1.05e-02 3.47e-03 -2.40e-03 -4.08e-03 9.32e-03 5.50e-04 -2.28e-03
## 1928
## 1929 2.52e-02 -5.03e-02 -1.44e-02 -5.62e-03 3.14e-02 9.05e-03 1.86e-04
## 1930 6.33e-03 -5.13e-04 -4.10e-03 -6.13e-03 -5.45e-04 6.17e-03 -1.20e-04
## 1931 -4.34e-03 1.41e-03 2.07e-03 2.56e-03 6.19e-04 -3.10e-03 -2.56e-04
## 1932 5.43e-02 1.47e-02 -5.25e-02 -5.27e-02 -7.38e-03 1.43e-02 -1.49e-02
## 1933 8.25e-03 -1.73e-03 -4.19e-03 3.06e-02 -1.18e-03 7.21e-04 1.79e-03
## 1934 6.15e-03 6.53e-03 -5.51e-03 -6.78e-03 1.89e-03 4.86e-03 1.23e-03
## 1935 -9.25e-03 -7.78e-03 5.67e-03 4.69e-03 1.17e-03 -1.16e-02 -2.92e-03
## 1936 3.42e-02 -6.96e-03 -8.00e-03 -2.62e-03 -1.28e-02 -1.27e-02 -1.17e-02
## 1937 3.29e-03 3.55e-03 -5.01e-03 -2.34e-03 1.48e-03 -1.90e-03 -2.17e-03
## 1938 -2.38e-02 2.14e-03 9.49e-03 2.94e-02 2.12e-02 -3.33e-03 1.00e-02
## 1939 -8.83e-03 2.71e-02 -8.53e-03 9.34e-03 1.63e-02 -2.76e-03 8.18e-03
## 1940 6.49e-03 1.87e-02 -4.90e-03 5.59e-03 2.89e-03 2.29e-03 1.88e-03
## 1941 -2.76e-03 -1.13e-03 -1.87e-04 1.34e-03 2.62e-03 -1.80e-03 -2.54e-03
## 1942 -3.70e-01 2.49e-01 2.32e-01 1.04e-01 -2.56e-02 -2.17e-01 -1.68e-01
        1.62e-03 5.40e-04 -1.26e-03 2.41e-03 3.68e-04 3.65e-04 5.57e-05
## 1944 4.20e-03 -5.57e-04 -3.05e-03 -2.86e-03 -1.05e-03 5.08e-04 -1.14e-03
## 1945 7.90e-03 1.42e-02 -1.22e-02 1.46e-02 -1.58e-02 -1.39e-02 -2.29e-02
## 1946 5.36e-03 -5.91e-03 -1.58e-03 1.08e-02 6.35e-03 2.35e-03 2.14e-03
## 1947
        2.61e-02 1.52e-03 -2.12e-02 2.03e-03 -1.03e-02 2.55e-03 -2.35e-03
## 1948
       1.45e-02 2.51e-02 -3.27e-02 1.47e-02 1.73e-02 -1.42e-02 -4.73e-03
       1.95e-02 4.16e-02 -1.09e-02 8.64e-03 -1.48e-02 4.69e-03 -1.13e-02
## 1950 -8.52e-03 2.69e-03 2.35e-03 -1.29e-03 -1.01e-03 3.36e-03 3.38e-03
## 1951 -4.45e-04 -2.28e-05 -1.51e-03 3.18e-04 3.59e-03 -9.26e-04 -6.84e-04
## 1952 7.37e-03 -1.60e-03 -1.70e-03 -1.01e-03 -5.20e-03 -1.91e-03 -7.43e-04
## 1953 1.16e-02 -1.33e-05 -7.27e-03 2.57e-02 1.55e-02 5.81e-03 5.00e-03
## 1954 -1.34e-02 9.39e-03 1.69e-02 -6.49e-03 -1.73e-02 -3.63e-03 -1.43e-03
## 1955 -4.24e-03 8.29e-03 -4.44e-03 1.49e-03 2.08e-02 5.27e-03 7.65e-03
## 1956 2.72e-02 8.58e-03 -9.70e-03 -2.97e-02 -1.66e-02 1.79e-02 4.85e-03
## 1957 3.86e-05 3.79e-03 -2.38e-03 3.37e-04 2.01e-03 -1.28e-03 1.69e-04
## 1958 5.72e-02 7.87e-02 -3.66e-02 5.78e-02 -5.49e-02 -3.15e-02 -8.89e-02
```

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## 1959 4.82e-03 2.56e-02 5.49e-03 -1.54e-02 -3.69e-02 -9.74e-03 -1.45e-02
## 1960 1.81e-02 -1.00e-02 -1.07e-02 -1.04e-02 -1.40e-02 9.39e-03 2.62e-04
## 1961 2.39e-02 -3.52e-03 -2.60e-04 -4.94e-03 -8.46e-03 5.11e-03 3.12e-03
## 1962 7.29e-02 -9.24e-02 -3.58e-03 1.14e-02 -3.13e-02 -2.80e-02 -2.26e-02
## 1963 -1.71e-02 5.03e-04 8.37e-04 6.07e-03 5.77e-03 4.02e-03 2.29e-03
## 1964 8.24e-03 2.61e-03 -3.18e-03 1.13e-03 -6.57e-03 -4.64e-04 -1.42e-03
## 1965 -1.53e-01 1.17e-02 -9.21e-03 1.09e-01 -3.23e-02 -1.52e-01 -4.81e-02
## 1966 2.77e-03 2.56e-02 2.55e-02 -3.08e-03 -4.37e-02 7.00e-03 8.05e-03
## 1967
       1.36e-02 -2.17e-02 3.08e-03 2.91e-02 8.65e-04 -1.12e-02 -9.23e-03
## 1968 -2.54e-03 -4.59e-04 1.10e-03 -1.23e-03 1.75e-03 1.86e-03 2.21e-03
## 1969 3.48e-02 4.33e-02 -5.78e-02 4.56e-02 2.88e-02 4.24e-03 -3.46e-03
## 1970 -4.29e-03 -1.08e-03 2.13e-03 2.14e-03 1.38e-03 4.01e-04 -3.10e-03
## 1971 2.07e-02 -2.78e-03 -8.13e-03 -1.74e-02 -6.15e-03 7.35e-03 -4.97e-03
## 1972 -6.59e-03 -7.51e-04 5.91e-04 6.38e-03 4.02e-03 -5.71e-03 1.96e-04
## 1973 2.65e-02 1.05e-02 -9.05e-03 3.01e-02 -3.66e-02 7.21e-03 1.24e-02
## 1974 1.45e-03 9.32e-04 -5.16e-03 1.11e-03 2.06e-03 2.12e-03 2.59e-03
## 1975 -2.08e-02 -3.41e-03 9.43e-03 1.38e-02 9.84e-03 -1.04e-02 2.31e-03
## 1976 -5.98e-03 -1.18e-02 1.91e-03 -1.40e-02 -1.15e-03 -4.15e-03 -2.46e-03
## 1977 -2.17e-03 -9.51e-03 1.10e-03 -5.89e-03 1.02e-02 3.02e-03 7.42e-04
## 1978 1.03e-02 2.31e-03 -5.88e-03 -1.82e-03 3.89e-03 -6.72e-03 -3.87e-03
## 1979 -1.28e-02 -9.41e-03 -7.95e-03 4.17e-02 -4.09e-02 -6.50e-02 -1.10e-01
## 1980 -1.35e-02 1.26e-02 -2.81e-03 1.04e-02 1.36e-04 -1.37e-02 -2.10e-03
## 1981 -2.67e-02 2.33e-02 -1.35e-02 4.77e-02 -9.67e-03 -3.44e-02 -5.56e-03
## 1982 6.66e-03 1.34e-03 -1.92e-03 1.78e-03 -3.07e-03 1.68e-03 1.54e-03
## 1983 -1.31e-02 -3.17e-03 7.45e-03 1.34e-02 4.53e-03 -6.85e-03 -8.71e-04
## 1984 5.22e-03 -9.16e-03 -4.65e-02 -1.42e-02 4.20e-02 1.30e-02 1.85e-03
## 1985
       1.48e-02 -4.63e-03 -5.90e-03 -8.24e-03 1.70e-03 -5.66e-03 -5.83e-03
## 1986 -5.31e-04 7.57e-04 2.21e-04 1.21e-03 -1.94e-04 2.13e-04 -2.50e-04
       9.81e-04 5.80e-04 -1.36e-03 1.37e-03 8.68e-04 -2.45e-03 -5.53e-04
## 1987
## 1988
       5.48e-05 -3.37e-05 6.22e-05 -4.78e-05 -3.73e-05 9.03e-05 1.68e-05
       2.51e-02 7.22e-03 2.69e-02 2.53e-03 -3.88e-02 1.69e-02 -1.20e-03
## 1990 2.35e-03 -2.66e-03 -4.70e-03 1.42e-03 3.66e-03 -2.47e-03 -1.10e-03
## 1991 -5.30e-03 1.63e-02 9.87e-03 4.90e-03 -7.90e-03 2.21e-02 7.64e-03
## 1992 3.89e-04 -1.08e-03 -6.27e-04 2.04e-03 1.34e-03 7.91e-04 6.16e-04
       8.56e-04 1.17e-02 -1.74e-03 -4.28e-03 3.80e-03 -2.63e-03 -2.24e-03
## 1994 -2.27e-03 4.62e-03 -2.65e-03 -1.17e-03 -7.97e-05 1.20e-03 3.81e-03
## 1995 3.62e-03 -9.71e-03 -2.45e-03 -1.51e-02 -1.41e-03 2.25e-02 6.37e-03
## 1996 -6.23e-05 -1.44e-04 1.07e-04 2.73e-05 -5.60e-05 -1.32e-04 -3.05e-05
        1.60e-02 -1.39e-03 -1.21e-02 -5.18e-03 -3.80e-03 -2.68e-03 -6.74e-03
       2.64e-03 1.34e-03 2.68e-03 -3.74e-03 -3.52e-03 3.75e-03 6.39e-04
## 1998
       7.66e-03 -2.51e-03 -2.87e-02 -2.47e-02 3.23e-02 1.47e-02 -1.06e-02
## 2000 5.37e-03 1.17e-03 -1.96e-03 -1.82e-02 6.73e-03 4.46e-03 -5.33e-03
       3.00e-02 1.04e-02 1.33e-02 2.01e-02 -1.10e-02 2.04e-02 7.99e-03
       1.72e-04 -1.70e-04 1.77e-04 -4.11e-04 3.07e-04 7.43e-04 2.56e-04
## 2002
## 2003 4.86e-04 6.27e-04 7.66e-04 1.71e-03 -6.38e-04 -1.13e-03 7.10e-04
## 2004 -1.47e-03 -1.11e-03 2.27e-03 -9.48e-04 -5.26e-04 1.19e-03 6.05e-04
## 2005 2.25e-02 1.20e-02 7.45e-04 -5.11e-03 -1.08e-02 3.03e-03 -2.15e-02
## 2006 -2.95e-03 8.35e-05 4.93e-04 -4.26e-03 2.94e-03 2.24e-03 -4.29e-05
## 2007 -2.29e-03 3.50e-03 4.73e-03 1.06e-03 -4.89e-03 1.28e-03 1.18e-03
## 2008 -9.46e-03 4.25e-03 8.09e-03 -2.70e-03 -1.20e-02 5.35e-03 5.06e-03
## 2009 5.61e-02 -4.64e-02 -3.09e-02 -3.79e-02 1.30e-04 3.72e-02 1.84e-02
## 2010 7.39e-03 1.79e-02 5.16e-04 9.73e-03 -1.74e-02 -3.61e-02 -8.40e-03
## 2011 -2.56e-02 2.06e-02 2.81e-02 -1.29e-03 1.53e-02 1.59e-02 1.07e-02
## 2012 3.99e-03 -1.18e-01 -7.58e-04 6.04e-03 5.45e-02 3.02e-02 3.32e-03
```

```
## 2013 -4.44e-03 -7.57e-03 5.52e-04 9.09e-05 2.53e-03 -4.76e-03 -6.68e-04
## 2014 2.24e-02 -2.51e-03 -6.99e-03 7.19e-03 -1.06e-02 8.15e-03 2.84e-03
## 2015 -2.77e-04 -1.18e-02 4.81e-03 -7.32e-03 6.57e-03 2.03e-02 2.62e-03
## 2016 3.47e-02 3.13e-02 1.55e-02 -2.02e-02 -1.83e-02 3.92e-02 1.71e-02
        3.87e-03 -3.77e-03 -2.97e-03 -7.06e-03 8.26e-04 1.58e-03 -1.54e-03
## 2018 -7.16e-03 6.22e-03 -1.01e-02 -2.04e-02 1.31e-02 -1.59e-03 -1.10e-03
## 2019 3.51e-03 -1.79e-02 5.77e-03 8.02e-04 -1.28e-02 -1.77e-02 -1.85e-03
       7.66e-03 -2.65e-04 -3.50e-03 6.09e-03 9.39e-03 1.34e-02 6.51e-03
## 2020
        4.46e-02 -6.61e-04 -3.74e-02 -2.73e-02 -1.49e-02 2.79e-02 6.58e-03
## 2022 4.25e-02 -1.09e-01 2.67e-03 -1.30e-02 5.52e-03 -3.31e-03 1.51e-03
## 2023 -3.48e-04 5.64e-04 -4.80e-04 1.15e-03 3.36e-06 -9.17e-04 6.25e-05
## 2024 -4.06e-03 5.68e-03 8.61e-05 -2.44e-03 2.95e-03 -3.87e-03 -1.96e-03
## 2025 -4.80e-04 -4.79e-04 5.50e-04 -6.95e-04 -1.33e-03 -8.79e-04 -1.26e-03
## 2026 -1.16e-04 -4.45e-03 -2.74e-03 6.40e-03 6.26e-03 4.94e-03 2.15e-03
## 2027 5.90e-02 -5.56e-02 -3.03e-02 -5.03e-02 -9.49e-03 3.77e-02 4.07e-03
## 2028 -2.24e-03 -1.27e-03 7.67e-04 -3.21e-03 -2.04e-03 3.71e-05 -8.70e-04
       6.92e-03 1.79e-02 1.11e-02 -1.89e-02 -1.57e-02 1.52e-02 -6.35e-03
## 2029
## 2030
       7.59e-04 4.54e-03 -1.01e-02 7.31e-03 2.50e-03 -6.94e-03 -5.47e-03
## 2031 8.78e-03 -7.63e-03 -6.64e-03 1.04e-02 8.10e-03 -6.51e-03 -3.20e-03
## 2032 -1.75e-03 1.28e-03 2.81e-03 1.21e-03 -7.74e-04 1.26e-04 4.13e-04
## 2033 -3.18e-03 -7.91e-03 7.56e-03 -7.54e-03 1.02e-02 6.35e-03 -1.86e-03
## 2034 5.63e-06 4.56e-04 -4.44e-04 -1.36e-03 9.04e-04 2.63e-04 -1.35e-05
       3.43e-02 1.20e-02 -1.41e-02 1.33e-02 -4.41e-02 1.70e-02 8.08e-03
## 2035
        1.00e-02 -5.66e-02 -5.74e-03 3.24e-02 1.56e-02 -2.07e-02 -1.78e-02
## 2037 7.92e-05 9.18e-04 8.57e-04 -2.74e-03 1.35e-03 2.40e-03 -2.02e-04
## 2038 -1.66e-02 4.06e-03 6.96e-03 -5.85e-03 9.14e-03 6.23e-03 -2.38e-03
## 2039 -1.71e-03 3.66e-03 3.59e-03 -6.97e-04 -3.90e-03 -5.25e-03 -1.86e-03
## 2040 3.38e-02 2.25e-02 -1.50e-03 3.28e-03 5.58e-03 4.47e-02 1.06e-02
## 2041 2.21e-04 1.58e-04 -9.95e-04 -8.42e-04 3.00e-04 -4.98e-04 -2.65e-04
## 2042 -1.37e-03 2.63e-03 1.60e-03 -2.18e-03 -3.43e-04 -2.63e-03 -1.56e-03
## 2043 -1.67e-02 -5.47e-02 1.49e-02 3.80e-04 -6.05e-04 -2.69e-03 -1.25e-02
## 2044 -7.49e-03 1.26e-02 9.39e-03 -9.58e-03 -2.27e-03 1.32e-02 3.11e-03
## 2045 -5.39e-03 -2.11e-03 9.54e-03 4.74e-04 -1.82e-03 5.32e-03 -2.95e-04
## 2046 5.78e-03 -7.18e-03 8.89e-03 -1.54e-02 -1.95e-02 5.73e-03 -2.63e-02
        6.62e-02 -3.43e-02 -5.13e-02 -3.28e-02 1.14e-03 4.03e-02 6.43e-03
## 2048 8.96e-02 -3.77e-02 -3.78e-02 -4.87e-02 -3.18e-02 4.67e-02 1.33e-02
## 2049 -3.80e-03 4.90e-03 7.23e-03 -2.46e-03 -6.20e-03 1.56e-03 1.36e-03
## 2050 -1.59e-02 -2.20e-02 3.19e-02 5.59e-03 -8.99e-03 2.15e-02 1.45e-02
## 2051 -1.44e-02 -2.82e-02 -4.09e-03 8.49e-03 2.56e-02 -2.90e-02 -6.71e-03
## 2052 9.62e-03 -2.56e-03 1.21e-03 -2.30e-03 8.91e-03 2.41e-02 2.45e-03
## 2053 -1.07e-03 -1.75e-03 6.61e-04 3.76e-03 2.58e-03 -2.22e-04 3.30e-04
## 2054 4.52e-03 -5.53e-03 8.45e-04 -7.69e-03 -9.85e-03 1.86e-02 4.56e-03
## 2055 -7.09e-03 -6.23e-04
                           2.09e-03 -1.01e-03 -1.70e-03 -5.55e-03 -1.24e-03
## 2056 -1.60e-02 2.02e-02 1.38e-02 1.44e-02 3.51e-03 -2.21e-02 -4.54e-03
## 2057 2.00e-02 -4.52e-03 1.84e-03 -6.18e-03 -1.43e-02 1.58e-02 5.83e-03
       1.03e-03 -1.68e-04 1.26e-03 1.31e-03 -2.58e-03 -7.08e-04 1.66e-04
## 2058
## 2059
       1.43e-03 -5.83e-03 2.82e-03 -4.79e-03 1.55e-02 1.80e-02 3.21e-03
## 2060 -4.44e-03 3.48e-02 8.59e-03 1.70e-02 -1.14e-02 2.76e-02 1.76e-02
## 2061 -7.69e-04 -1.26e-02 -1.20e-02 1.26e-02 1.03e-02 -4.71e-03 -5.42e-03
## 2062
       2.41e-03 -2.96e-02 1.44e-02 2.23e-02 -1.40e-02 -2.30e-03 -2.30e-03
## 2063 -2.97e-04 -2.89e-04 2.60e-04 1.79e-04 4.41e-06 -5.08e-04 -1.81e-04
## 2064 1.16e-02 -8.89e-04 4.30e-03 3.84e-04 -3.37e-03 -2.74e-03 7.03e-04
## 2065 -2.21e-02 2.59e-02 -1.65e-03 -2.34e-02 -2.25e-03 -1.54e-02 1.80e-02
## 2066 -1.52e-01 -1.76e-02 3.53e-02 4.60e-02 -1.25e-01 1.31e-01 4.02e-02
```

```
## 2067 -7.93e-02 -3.94e-02 2.38e-02 -3.25e-03 -9.68e-03 5.07e-02 2.57e-02
## 2068 1.10e-04 2.41e-04 -7.85e-06 1.67e-05 9.63e-05 9.04e-06 -1.35e-04
## 2069 -1.70e-02 1.56e-02 1.03e-02 -4.73e-02 3.25e-02 -4.39e-03 -2.01e-03
## 2070 -1.18e-02 -1.66e-04 7.10e-03 9.67e-03 7.08e-03 -6.05e-03 1.77e-03
## 2071 -3.26e-02 -6.32e-03 -2.65e-02 -2.45e-02 6.31e-02 4.08e-02 6.96e-03
## 2072 3.77e-04 -9.40e-03 -1.06e-02 1.17e-02 -2.88e-02 1.19e-02 -5.82e-03
## 2073 2.34e-03 5.62e-03 6.50e-04 8.46e-04 -7.71e-03 -2.32e-03 -3.43e-03
## 2074 3.65e-03 -4.67e-03 1.40e-03 1.89e-03 -1.92e-02 1.07e-02 7.32e-03
## 2075 -1.55e-02 -1.79e-02 1.62e-02 4.90e-03 8.54e-03 1.38e-03 7.50e-03
## 2076 -2.01e-02 -5.84e-02 2.56e-02 -2.14e-03 1.39e-03 -1.65e-02 -1.94e-03
## 2077 -2.43e-02 1.72e-02 9.61e-03 2.63e-02 -5.34e-03 -1.89e-02 8.97e-03
## 2078 -5.39e-02 -2.04e-02 2.29e-02 8.60e-03 4.83e-03 2.95e-02 9.56e-03
## 2079 -1.79e-02 7.51e-02 6.16e-02 1.02e-01 -7.17e-02 -2.25e-02 1.97e-02
## 2080 1.73e-02 6.14e-02 -1.83e-02 -9.56e-02 -1.09e-02 1.25e-02 -7.66e-03
## 2081 -7.89e-03 -5.19e-03 -9.36e-05 5.30e-03 1.05e-02 4.77e-03 3.57e-03
## 2082 -7.99e-03 3.84e-04 -3.45e-03 1.46e-02 4.35e-03 -7.70e-03 -2.71e-03
## 2083 -1.50e-04 9.88e-04 5.81e-04 1.50e-03 -6.82e-04 -5.15e-04 -7.34e-05
## 2084 -6.14e-04 4.47e-04 5.64e-04 -1.04e-05 3.63e-04 5.49e-04 -7.73e-05
       4.82e-03 -8.09e-04 -6.81e-03 -3.13e-03 9.94e-04 -2.30e-03 -9.22e-05
## 2085
       2.39e-03 -1.26e-02 7.84e-03 -7.04e-03 -7.64e-03 9.40e-03 2.77e-03
## 2087
       1.49e-03 -2.62e-03 -3.76e-03 -8.58e-03 2.53e-03 -2.72e-04 -3.54e-02
## 2088 -1.13e-04 7.86e-04 -4.31e-04 -2.93e-04 2.70e-04 4.25e-04 -1.33e-05
        1.73e-02 -1.47e-02 -1.40e-02 -7.20e-03 3.98e-03 6.64e-03 -2.57e-02
## 2089
       5.25e-02 -3.43e-02 -3.40e-02 -2.51e-03 -2.37e-03 3.06e-02 -3.11e-02
## 2090
       1.09e-03 -1.94e-03 -1.66e-03 2.80e-03 -4.00e-03 -5.60e-03 7.34e-04
## 2091
## 2092 4.91e-05 8.17e-04 -1.38e-03 -3.16e-05 5.74e-04 1.63e-04 -7.32e-05
## 2093 -3.89e-04 4.30e-04 -7.11e-04 5.46e-05 2.86e-04 2.51e-04 1.13e-03
       5.80e-03 1.49e-03 -8.85e-04 -2.93e-03 -1.02e-02 -6.08e-03 1.02e-03
## 2094
       3.06e-03 -8.85e-03 1.08e-03 -8.26e-04 4.14e-03 -9.92e-03 -2.33e-03
## 2095
## 2096 -6.13e-03 -1.36e-02 1.05e-02 9.19e-03 1.42e-02 -1.59e-02 -2.52e-04
        2.36e-03 6.16e-04 -5.84e-04 7.21e-04 -1.88e-03 -7.14e-03 -2.79e-03
## 2097
## 2098
        1.83e-03 -1.30e-02 7.06e-03 -3.12e-03 -2.39e-03 6.83e-03 -1.12e-03
## 2099
        9.25e-04 -4.44e-04 1.84e-03 -1.64e-03 -4.57e-03 -1.63e-03 5.22e-04
        1.34e-02 -1.45e-02 7.34e-03 2.09e-03 -8.26e-03 -6.18e-03 5.19e-03
## 2100
        2.93e-03 8.29e-04 -1.26e-02 1.08e-02 6.76e-03 -1.27e-02 -2.51e-02
## 2102 -1.16e-03 -1.04e-03 4.30e-03 -3.24e-03 -5.47e-03 -2.33e-03 4.28e-04
## 2103 1.26e-03 -5.95e-03 2.47e-03 -4.14e-03 4.51e-05 -5.06e-03 2.72e-04
## 2104 9.34e-04 -1.31e-03 4.00e-04 1.77e-04 -9.88e-04 -8.67e-04 6.57e-05
        4.27e-03 -7.47e-03 3.73e-03 -1.97e-03 -3.51e-03 -3.26e-03 2.26e-03
## 2106 5.51e-03 -1.45e-02 9.25e-03 -1.36e-02 -4.94e-03 1.57e-02 -7.14e-03
## 2107 1.05e-02 -3.74e-02 9.72e-03 5.17e-03 -4.24e-03 -3.67e-03 7.37e-03
## 2108 -1.41e-02 -1.27e-02 8.47e-03 -3.56e-04 1.06e-03 -6.97e-03 -1.37e-03
## 2109 6.45e-04 1.17e-03 7.59e-05 9.54e-04 -5.69e-04 -1.18e-03 -9.95e-04
## 2110 8.82e-04 -3.48e-04 -6.26e-04 -7.64e-04 -1.79e-03 -6.46e-04 3.18e-04
## 2111 3.58e-02 -1.74e-02 -3.41e-02 -3.41e-02 -1.72e-02 -2.58e-04 -6.62e-03
## 2112 -1.03e-02 1.28e-02 2.66e-02 6.12e-03 -3.09e-02 1.20e-02 6.03e-03
## 2113 1.22e-02 -1.18e-02 -2.13e-02 -2.15e-02 1.59e-03 -3.60e-03 -3.67e-03
## 2114 -8.29e-03 -4.03e-03 -1.66e-02 -1.88e-02 8.69e-03 4.94e-03 6.93e-04
## 2115 1.20e-03 -8.14e-03 1.02e-03 -7.14e-03 -4.05e-03 5.99e-03 3.64e-03
## 2116 -1.36e-02 1.25e-02 1.51e-02 -1.53e-02 4.85e-04 5.93e-02 1.63e-02
## 2117 -1.15e-02 2.51e-02 1.16e-02 -8.55e-03 -6.22e-03 1.70e-02 1.41e-02
## 2118 2.86e-03 1.96e-03 1.94e-04 -7.25e-03 -5.71e-03 2.41e-03 4.74e-04
## 2119 -2.43e-02 -7.19e-03 1.83e-02 7.44e-04 -9.55e-05 -9.74e-03 3.12e-03
## 2120 3.50e-03 -4.30e-03 -2.83e-03 -3.38e-03 -4.74e-03 -5.27e-03 -6.87e-03
```

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## 2121 1.77e-03 -8.10e-03 6.18e-03 4.49e-03 -6.38e-03 6.07e-03 3.32e-04
## 2122 -7.65e-05 1.21e-04 -2.37e-03 1.34e-03 1.02e-02 7.43e-03 3.95e-04
## 2123 2.21e-03 9.14e-03 9.18e-03 -5.02e-03 -1.93e-02 1.44e-02 2.70e-03
## 2124 1.53e-03 2.85e-03 -2.55e-03 2.98e-03 2.88e-03 1.10e-03 1.69e-04
       7.46e-04 -1.48e-03 -8.53e-04 -2.88e-03 -6.12e-04 3.56e-03
## 2126 -1.32e-03 5.37e-04 1.47e-03 2.09e-03 8.86e-04 2.33e-04 4.06e-03
## 2127 3.72e-03 1.54e-03 3.79e-03 -2.33e-02 -1.21e-02 1.65e-02 4.86e-03
## 2128 -7.08e-03 -5.47e-03 3.56e-03 -1.11e-02 1.53e-03 -1.87e-03 -1.47e-03
## 2129 -2.38e-03 -3.23e-03 6.42e-03 8.49e-03 6.19e-03 -9.84e-03 -5.99e-03
## 2130 2.42e-02 -1.47e-02 -8.85e-03 -4.55e-02 -4.06e-02 -1.61e-02 -1.35e-02
## 2131 -1.46e-04 3.76e-04 2.71e-04 4.44e-04 1.02e-03 -1.60e-04 -1.20e-04
## 2132 1.18e-02 -2.63e-03 -6.84e-03 2.86e-03 -5.88e-03 -5.91e-03 -4.36e-03
## 2133 -1.31e-04 -7.94e-06 2.50e-04 4.84e-04 -4.99e-04 1.48e-04 1.16e-05
## 2134 3.39e-03 -2.88e-03 -5.27e-03 -7.65e-03 7.20e-03 -6.21e-03 -3.83e-03
## 2135 1.39e-02 -1.75e-02 -2.37e-02 -6.51e-03 6.42e-03 -9.95e-03 -2.53e-03
## 2136 -3.21e-03 -7.22e-04 3.03e-03 -2.11e-03 -2.93e-04 -1.55e-04 1.08e-03
## 2137 9.43e-03 -7.61e-03 5.72e-04 1.60e-03 -1.59e-02 -4.90e-03 -3.30e-03
## 2138 1.14e-02 -1.14e-02 -2.85e-03 -8.48e-03 -5.72e-04 6.80e-03 4.02e-03
## 2139 -4.63e-05 7.89e-05 -2.91e-03 -6.34e-03 1.77e-03 7.90e-03 1.00e-02
## 2140 -7.38e-03 3.07e-03 1.17e-02 -4.21e-04 -7.98e-03 1.36e-02 9.20e-03
## 2141 1.33e-03 -4.85e-03 -2.46e-03 7.11e-04 1.45e-04 4.81e-03 8.95e-04
## 2142 6.71e-04 1.00e-03 -1.16e-03 5.53e-04 9.84e-04 -2.33e-03 -1.49e-03
## 2143 1.77e-03 2.93e-03 -4.32e-03 -5.57e-04 5.59e-03 9.97e-04 -1.04e-03
## 2144 -7.41e-03 -1.45e-02 6.48e-04 4.17e-03 1.34e-02 -1.76e-02 -8.39e-03
## 2145 -3.45e-02 2.57e-03 3.44e-02 2.02e-03 -1.95e-02 -1.17e-02 -4.35e-03
## 2146 7.51e-04 -2.84e-03 3.15e-04 -1.74e-03 6.38e-04 4.32e-03 2.06e-03
## 2147 1.16e-02 1.81e-03 -1.60e-02 -4.29e-03 9.91e-04 1.01e-02 5.40e-03
## 2148 -1.02e-02 -1.48e-02 4.40e-03 -5.56e-03 4.39e-03 2.11e-02 -5.91e-03
## 2149 -3.53e-03 1.53e-04 6.80e-03 -8.74e-04 -2.65e-03 6.70e-03 3.32e-03
## 2150 6.24e-04 -2.74e-04 -5.93e-04 3.81e-04 -5.84e-04 6.52e-04 4.33e-04
## 2151 -1.22e-02 -4.69e-03 6.02e-03 -1.87e-02 -1.40e-03 -9.97e-03 -7.33e-04
## 2152 -6.72e-03 -1.51e-02 9.39e-03 -1.82e-02 6.51e-03 8.28e-04 -8.18e-04
## 2153 -2.85e-03 2.99e-03 3.51e-03 -4.80e-03 -2.22e-03 1.38e-02 5.92e-03
## 2154 -6.44e-03 -9.75e-03 1.56e-03 -1.16e-02 1.99e-02 -3.59e-02 -1.78e-02
## 2155 -1.17e-02 3.89e-02 1.49e-02 -1.66e-03 -9.11e-03 3.62e-02 1.30e-02
## 2156 -1.37e-02 -1.98e-03 2.45e-02 5.43e-04 -1.10e-02 1.59e-02 1.10e-02
## 2157 3.47e-02 -1.07e-01 -2.33e-02 -7.01e-03 2.93e-02 -7.17e-02 -5.51e-02
## 2158 -1.84e-03 9.24e-03 4.73e-04 -4.32e-03 -1.02e-03 3.18e-03 -1.37e-03
## 2159 -1.35e-02 4.80e-03 1.23e-02 1.13e-03 1.72e-03 1.94e-03 1.72e-03
## 2160 2.22e-02 2.92e-02 -4.39e-02 1.23e-03 2.46e-02 -1.79e-02 -1.06e-02
## 2161 -3.99e-02 4.04e-02 3.02e-02 -5.79e-03 6.48e-04 4.47e-02 2.33e-02
## 2162 -1.09e-03 -2.65e-03 -3.47e-03 2.20e-03 3.62e-03 -1.98e-03 -1.79e-03
## 2163 -4.88e-03 -2.53e-02 -3.29e-04 2.59e-03 -4.98e-03 -1.35e-02 -3.58e-03
## 2164 -2.63e-02 3.52e-02 3.59e-02 -7.43e-03 -1.55e-02 3.54e-02 1.71e-02
## 2165 1.87e-02 1.88e-02 -3.72e-02 -2.58e-03 1.56e-02 1.41e-02 -6.02e-03
## 2166 -2.47e-02 1.39e-02 3.02e-02 2.77e-03 -6.29e-03 -3.58e-04 2.54e-03
## 2167 -8.84e-03 3.32e-02 -3.63e-03 -3.30e-02 -2.22e-02 3.76e-02 1.26e-02
## 2168 -5.17e-03 4.58e-03 2.59e-03 3.65e-04 4.72e-03 1.39e-03 3.97e-04
## 2169 -1.02e-02 1.20e-02 7.58e-03 -1.11e-02 -2.49e-03 4.99e-03 -1.87e-03
## 2170 -6.90e-03 1.10e-02 9.89e-03 1.15e-03 -2.62e-03 1.04e-03 -2.27e-03
## 2171 -2.89e-02 3.46e-02 2.96e-02 -2.20e-03 4.28e-04 1.27e-02 7.10e-03
## 2172 -3.53e-03 -1.23e-03 9.54e-04 -4.02e-04 4.46e-04 2.86e-03 2.16e-03
## 2173 -8.90e-03 1.89e-02 2.98e-03 3.59e-03 1.24e-02 6.66e-03 3.22e-04
## 2174 -1.87e-02 -3.73e-02 2.99e-02 -1.58e-03 2.99e-03 -6.24e-03 -3.22e-02
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## 2175 -4.00e-03 9.97e-03 -3.28e-03 -1.41e-02 3.87e-03 -1.32e-03 4.18e-04
## 2176 -9.29e-02 5.57e-02 1.42e-01 -2.08e-03 -5.43e-02 8.26e-02 5.57e-02
## 2177 -1.57e-04 -3.35e-03 1.75e-04 1.55e-03 4.02e-04 -4.50e-03 -7.72e-04
## 2178 -4.06e-02 3.66e-02 3.99e-02 -9.43e-03 -4.07e-03 2.00e-02 2.07e-02
## 2179 -5.77e-03 2.15e-03 4.37e-03 -4.69e-03 -1.99e-04 7.15e-03 -1.70e-03
## 2180 -2.90e-02 3.61e-02 1.73e-02 -1.08e-02 -1.41e-02 1.05e-02 3.88e-03
## 2181 -1.09e-02 -9.14e-03 1.19e-02 2.51e-02 3.83e-03 -1.83e-04 2.06e-03
## 2182 -1.77e-03 4.43e-03 2.34e-03 -1.51e-03 -2.63e-03 1.59e-03 -2.23e-04
## 2183 -9.64e-03 -9.15e-03 -5.68e-03 -1.66e-02 2.41e-02 2.43e-02 -5.41e-03
## 2184 -1.33e-02 -2.44e-02 2.13e-03 -1.09e-02 1.32e-02 -3.44e-03 -6.27e-03
## 2185 -8.07e-04 1.23e-02 -1.02e-02 -1.13e-02 -4.97e-03 1.10e-02 4.60e-04
## 2186 6.47e-04 -9.21e-04 -7.85e-04 -1.62e-03 -1.12e-03 4.69e-04 -7.91e-04
## 2187
       8.80e-04 8.22e-03 9.23e-03 4.54e-03 1.66e-03 6.89e-03 -2.05e-03
## 2188 -1.60e-04 -1.16e-03 2.03e-03 -1.54e-03 1.03e-03 1.14e-02 1.22e-03
       1.80e-04 -2.04e-03 -1.79e-03 -2.22e-03 4.54e-04 -1.03e-03 1.90e-03
## 2189
## 2190 7.96e-03 -7.28e-04 -2.34e-02 -1.28e-02 7.76e-03 -1.13e-03 -1.08e-02
## 2191 1.66e-03 -3.15e-03 -9.64e-03 -6.26e-03 6.97e-03 5.32e-03 -1.08e-03
## 2192 9.16e-05 2.33e-05 -2.28e-03 -2.38e-03 6.12e-04 -7.97e-04 3.06e-05
## 2193 7.11e-05 1.11e-04 -9.06e-04 -5.35e-04 1.58e-03 1.40e-03 5.10e-05
## 2194 1.63e-03 4.52e-03 2.02e-05 2.48e-03 -3.22e-03 -3.47e-03 -6.57e-04
## 2195 9.58e-03 4.23e-03 -1.98e-02 -1.13e-02 1.52e-02 1.03e-02 -5.85e-03
## 2196 -1.54e-02 2.51e-02 -5.99e-04 -2.18e-02 2.42e-03 2.15e-02 8.11e-03
## 2197 -4.43e-03 1.15e-02 -1.41e-02 -2.09e-02 1.02e-02 5.90e-04 -1.30e-02
## 2198 -4.39e-03 2.27e-03 4.82e-03 -4.90e-03 -1.84e-05 5.95e-03 1.70e-03
## 2199 -3.02e-03 1.28e-03 5.11e-03 4.03e-03 -9.33e-03 -1.43e-02 -1.70e-03
## 2200 -5.68e-03 2.58e-03 6.69e-04 -9.78e-03 8.86e-03 1.39e-02 1.34e-03
## 2201 -4.53e-05 -3.69e-04 -4.20e-04 -8.67e-04 3.47e-04 1.38e-04 5.31e-05
## 2202 -5.83e-04 -8.05e-04 -3.82e-04 1.23e-03 7.05e-04 -1.32e-03 2.33e-04
## 2203 2.12e-03 2.91e-03 -7.23e-03 -1.26e-02 3.51e-03 3.88e-03 -2.28e-03
## 2204 -5.08e-02 -1.18e-02 3.20e-02 2.75e-02 3.25e-03 -9.67e-03 -4.85e-03
## 2205 -4.42e-03 5.83e-03 -4.92e-03 1.19e-03 7.18e-03 -8.79e-03 -1.02e-02
## 2206 -8.81e-04 6.30e-05 1.48e-04 -7.72e-04 7.46e-04 5.36e-04 -2.47e-04
## 2207 8.57e-03 8.20e-03 -1.06e-02 -2.68e-03 1.75e-05 7.30e-03 1.46e-04
## 2208 1.42e-03 3.90e-04 -3.26e-03 -4.10e-03 4.04e-03 5.36e-03 -1.26e-03
        1.32e-02 -6.56e-03 -4.98e-03 -1.23e-02 1.64e-03 4.08e-03 -2.08e-03
## 2210 -8.87e-03 -1.81e-03 1.65e-02 1.01e-02 -9.97e-03 -8.33e-03 3.12e-03
## 2211 5.75e-03 7.60e-03 -4.52e-03 1.46e-03 -1.26e-03 4.98e-03 -9.65e-04
## 2212 -1.03e-03 -1.16e-03 3.20e-04 -1.47e-03 1.16e-03 1.01e-03 3.08e-05
## 2213 -2.87e-04 2.15e-03 -3.88e-03 3.59e-03 1.58e-03 -4.47e-03 -3.85e-03
## 2214 1.56e-03 -1.74e-03 -2.06e-03 -2.32e-03 1.27e-03 1.88e-03 -6.96e-04
## 2215 -7.71e-03 1.15e-02 -5.78e-03 -6.61e-03 8.77e-03 3.42e-03 -1.55e-03
## 2216 1.56e-02 -9.11e-03 -2.82e-02 -3.61e-03 2.30e-02 1.76e-02 -2.76e-03
## 2217 6.26e-03 -1.08e-02 -1.82e-02 -1.94e-02 1.80e-02 1.29e-02 -2.25e-03
## 2218 -9.64e-04 5.14e-03 -2.41e-03 1.81e-03 2.00e-03 8.85e-04 -1.02e-03
## 2219 -6.37e-03 5.87e-03 9.51e-03 -2.12e-03 -4.41e-03 8.13e-03 1.94e-03
## 2220 -3.53e-03 1.63e-02 -4.11e-03 -8.04e-04 3.50e-03 1.32e-02 4.91e-03
## 2221 2.21e-03 2.50e-03 -3.53e-03 -1.11e-03 -7.97e-04 -3.14e-03 -7.43e-04
## 2222 -2.73e-02 -4.58e-03 1.85e-02 -2.07e-02 -1.17e-02 6.47e-03 1.26e-03
## 2223 -1.70e-03 -4.17e-03 -1.03e-03 -1.23e-03 -8.49e-04 8.52e-04 -6.53e-04
## 2224 8.68e-04 1.28e-03 -3.94e-03 -2.36e-03 2.73e-03 8.46e-04 -8.91e-04
       2.80e-03 6.59e-04 -3.95e-04 4.74e-04 3.32e-05 3.18e-04 6.04e-04
## 2226 -6.41e-05 1.87e-04 -2.06e-04 -4.04e-04 1.19e-04 5.91e-04 -8.12e-06
## 2227 5.55e-03 -7.73e-03 -8.82e-03 -2.17e-02 9.82e-03 1.21e-02 -5.42e-03
## 2228 7.11e-04 3.20e-03 -1.10e-03 -1.14e-03 3.71e-04 3.49e-03 2.70e-04
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## 2229 -8.41e-03 -2.57e-03 -1.42e-02 -2.01e-02 1.95e-02 9.68e-03 -6.19e-04
## 2230 7.70e-03 1.66e-02 -1.51e-02 -1.70e-02 5.53e-04 2.86e-02 1.27e-04
## 2231 2.43e-04 -1.04e-04 -9.41e-05 -7.17e-04 2.34e-04 3.10e-04 -1.64e-05
## 2232 -2.30e-02 1.79e-03 4.94e-03 -1.54e-02 2.68e-02 2.51e-02 4.46e-03
## 2233 8.12e-04 7.76e-04 -1.91e-03 -6.49e-04 1.17e-03 1.33e-03 -3.11e-04
## 2234 -7.35e-03 -7.50e-04 -1.07e-03 1.69e-03 2.49e-03 -5.03e-03 -4.52e-03
## 2235 -2.49e-02 1.17e-02 -9.52e-03 -1.08e-02 4.17e-02 2.76e-02 3.19e-05
## 2236 3.06e-03 -7.03e-03 -3.32e-03 -2.05e-03 3.65e-03 3.97e-03 -2.06e-03
## 2237 -1.73e-03 -1.08e-03 7.61e-03 -1.05e-02 -5.61e-03 1.00e-02 8.02e-04
## 2238 -1.52e-02 1.65e-02 3.89e-03 -2.67e-02 2.51e-02 3.38e-02 8.98e-03
## 2239 -2.63e-04 2.07e-03 -8.26e-03 1.03e-02 4.37e-03 -9.76e-03 -1.18e-02
## 2240 -5.55e-03 3.24e-03 9.34e-03 1.82e-03 -2.92e-03 -3.28e-03 3.13e-03
## 2241 -2.22e-04 1.43e-03 -2.12e-03 -3.79e-03 1.68e-03 3.62e-03 3.60e-04
## 2242 5.02e-03 -5.94e-03 1.16e-03 -5.49e-03 -4.58e-03 5.74e-03 -1.62e-03
## 2243 8.33e-03 1.49e-02 -1.26e-02 -1.36e-03 -1.81e-03 2.00e-02 -1.97e-03
## 2244 5.96e-03 4.14e-03 3.60e-03 -8.73e-03 1.83e-03 1.43e-02 3.29e-03
## 2245 -4.61e-03 -1.01e-03 3.09e-03 -1.60e-03 1.16e-03 3.30e-03 -1.71e-03
## 2246 -4.29e-03 -2.56e-04 -9.74e-05 6.36e-05 4.26e-04 -9.85e-04 -1.20e-03
## 2247 -5.29e-04 -2.12e-05 -5.17e-04 -7.93e-04 1.86e-04 -6.10e-04 1.35e-04
## 2248 -1.28e-03 2.53e-03 -1.21e-03 -2.92e-03 2.99e-03 4.07e-03 4.66e-04
## 2249 1.26e-02 7.99e-03 -6.47e-03 -7.34e-04 4.88e-03 1.31e-02 1.26e-04
## 2250 -3.87e-04 2.06e-03 7.16e-04 1.53e-03 1.28e-03 -6.39e-05 8.83e-04
## 2251 -1.35e-02 6.59e-03 -1.19e-02 -7.87e-03 2.46e-03 3.74e-03 -1.02e-02
## 2252 -1.19e-03 3.96e-04 -4.03e-03 -3.89e-03 4.45e-04 6.15e-04 -2.21e-03
## 2253 1.25e-03 -3.33e-03 -4.57e-03 3.82e-03 -8.41e-03 2.61e-03 -2.24e-03
## 2254 2.27e-02 -2.62e-02 -1.37e-02 -1.40e-02 2.07e-02 9.64e-03 3.86e-04
## 2255
       3.87e-03 9.30e-03 5.06e-04 -1.23e-02 -1.51e-03 3.65e-04 6.51e-03
        3.83e-03 -7.98e-03 -7.19e-03 -7.97e-03 4.80e-03 -6.89e-03 -1.62e-03
## 2257 -2.45e-04 3.33e-03 6.98e-04 8.31e-03 -7.20e-03 -1.93e-03 -1.90e-03
## 2258 2.99e-03 1.13e-03 9.90e-04 2.51e-03 -5.28e-05 9.03e-04 1.85e-03
## 2259 -1.74e-03 -1.02e-03 1.06e-03 3.01e-03 1.02e-04 -1.45e-03 1.80e-03
       1.88e-03 -3.14e-03 -3.56e-03 -3.31e-03 -6.70e-04 2.25e-03 -2.85e-03
## 2261
        1.59e-03 1.02e-02 3.50e-03 8.40e-03 -1.51e-03 1.06e-02 1.71e-02
## 2262 3.21e-04 5.93e-03 -3.50e-03 -8.94e-03 -6.47e-03 2.47e-03 -3.95e-03
## 2263 -6.50e-04 3.96e-04 -7.43e-04 8.19e-04 2.84e-03 -7.73e-04 -5.55e-03
## 2264 9.94e-03 2.70e-03 -2.60e-03 2.08e-03 3.65e-03 3.12e-03 2.49e-03
## 2265 7.35e-03 -8.30e-03 -4.43e-03 -2.59e-03 7.36e-03 -3.44e-04 1.33e-03
## 2266 -2.42e-03 -5.13e-03 -2.80e-03 -4.44e-03 -6.32e-03 1.10e-03 -6.36e-03
## 2267 -1.61e-02 3.60e-03 7.88e-03 -5.01e-03 -4.28e-02 1.81e-02 -3.00e-03
## 2268 1.24e-02 -1.68e-02 6.53e-03 1.84e-03 1.48e-02 8.33e-03 1.12e-02
## 2269 -5.93e-03 -1.17e-02 1.27e-02 -5.87e-03 1.62e-02 -1.49e-02 7.55e-04
## 2270 -9.20e-03 1.91e-02 3.26e-02 3.29e-03 1.93e-02 -1.88e-02 9.46e-03
## 2271 1.27e-03 -1.28e-03 3.23e-03 -5.16e-04 4.61e-03 -9.53e-04 2.35e-03
## 2272 -2.58e-03 5.46e-04 -2.95e-03 -1.75e-02 -8.53e-03 1.47e-02 1.60e-03
## 2273 -5.94e-04 -8.41e-04 8.44e-04 2.25e-04 1.56e-03 -5.97e-04 1.13e-03
## 2274 3.52e-04 -2.84e-05 4.72e-04 -9.94e-04 1.11e-03 -2.62e-05 6.07e-04
## 2275 -3.36e-03 2.83e-03 -9.75e-04 -1.14e-03 -6.68e-03 4.17e-03 -2.82e-03
## 2276 -2.16e-03 -8.75e-03 8.74e-03 1.43e-02 8.62e-03 5.12e-04 1.15e-02
## 2277 3.86e-03 6.65e-03 1.02e-02 3.00e-02 1.05e-02 6.37e-03 -6.13e-03
## 2278 -3.14e-02 -1.07e-02 6.73e-03 2.02e-02 2.25e-02 -1.15e-02 -9.59e-03
## 2279 -5.21e-03 3.64e-03 3.39e-02 -1.44e-02 -6.48e-03 2.04e-02 2.35e-03
## 2280 3.54e-03 1.43e-03 1.56e-03 -8.19e-04 3.66e-03 2.47e-03 4.78e-03
## 2281 8.80e-03 -1.07e-02 -4.68e-03 -1.71e-03 6.89e-03 -6.74e-03 3.42e-03
## 2282 2.79e-03 -2.72e-02 1.27e-02 -2.22e-02 8.23e-03 1.06e-02 1.19e-02
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## 2283 8.62e-03 -3.81e-03 -1.27e-02 2.00e-02 -8.95e-03 -3.47e-02 -1.13e-02
## 2284 6.73e-03 6.91e-03 9.05e-03 3.38e-02 -2.29e-02 -4.17e-02 -3.16e-03
## 2285 -9.39e-03 1.01e-02 1.05e-02 -4.68e-03 -1.63e-02 -9.67e-03 -1.78e-03
## 2286 -3.76e-02 4.49e-02 6.45e-02 9.93e-03 -9.97e-02 -1.64e-03 2.24e-02
        8.19e-03 4.57e-02 -5.52e-02 2.09e-03 8.27e-02 2.90e-02 -8.79e-03
## 2288 -3.11e-03 -6.86e-03 2.56e-03 -3.84e-03 5.20e-04 1.04e-02 2.94e-03
       4.24e-05 3.96e-04 1.44e-03 5.60e-04 -6.99e-04 -1.89e-03 -2.51e-04
## 2290 -1.00e-02 -1.70e-02 -2.36e-02 -2.75e-03 3.01e-02 7.67e-03 -1.35e-03
        1.40e-03 9.52e-04 -9.71e-04 -8.54e-04 -6.14e-04 -1.74e-04 -6.73e-05
## 2292
       9.76e-05 -4.87e-04 -1.90e-04 -6.69e-04 -1.29e-04 9.51e-05 2.91e-05
## 2293 1.34e-04 -2.68e-04 1.62e-04 1.19e-04 -8.18e-04 -1.02e-04 6.44e-05
## 2294 -4.16e-03 -2.38e-03 5.11e-03 5.80e-03 -6.02e-03 5.01e-03 2.18e-03
## 2295 -1.92e-02 -1.57e-02 -8.27e-04 -3.78e-04 7.59e-03 8.45e-03 -1.19e-03
## 2296
       3.02e-02 -1.65e-02 -5.02e-02 -2.81e-02 4.05e-02 4.28e-02 -9.21e-04
        2.77e-02 -1.27e-02 3.68e-03 -5.14e-02 -5.49e-02 -5.68e-03 -9.21e-03
        3.30e-03 -9.15e-03 -2.35e-03 -9.10e-04 1.88e-03 9.37e-03 1.57e-03
## 2298
       2.06e-03 -1.37e-02 1.96e-02 -5.30e-03 2.02e-03 2.18e-02 4.46e-03
## 2299
## 2300 -7.60e-03 5.57e-03 5.80e-03 -3.50e-03 4.74e-04 -1.06e-02 -6.20e-04
## 2301 -5.47e-03 4.96e-03 -7.45e-03 5.40e-03 1.90e-02 3.65e-03 -3.24e-03
## 2302 6.76e-05 -2.85e-04 -1.20e-04 1.16e-04 2.21e-04 -3.45e-04 -9.50e-05
## 2303 2.64e-02 9.50e-04 -4.17e-02 -1.11e-02 9.63e-03 3.81e-02 5.37e-03
## 2304 -7.80e-04 3.52e-03 4.37e-03 2.54e-04 2.85e-04 -1.15e-03 -2.53e-04
## 2305 -1.09e-02 1.87e-02 2.96e-03 -4.78e-03 1.15e-02 1.86e-02 9.55e-03
       3.35e-02 3.80e-02 -6.25e-02 1.27e-02 3.51e-02 1.65e-02 -1.10e-02
## 2306
## 2307
       1.11e-02 -2.88e-02 -3.04e-02 -3.41e-02 8.07e-03 1.32e-02 2.93e-03
## 2308 3.31e-03 -6.51e-04 1.86e-03 -5.22e-03 4.09e-03 5.16e-03 1.47e-03
## 2309 7.51e-03 -1.66e-03 -1.49e-02 -1.63e-03 1.96e-02 1.09e-02 -1.23e-03
## 2310 -1.11e-03 1.66e-03 6.75e-04 2.67e-03 -4.31e-03 -4.36e-03 -4.21e-04
## 2311 1.10e-03 -2.34e-03 -1.27e-03 -6.43e-03 2.02e-02 2.64e-02 1.03e-02
## 2312 -1.30e-02 2.24e-03 -1.10e-02 -7.28e-04 1.02e-02 1.93e-02 -1.57e-03
## 2313 6.53e-03 2.69e-03 -7.53e-03 -6.12e-03 3.40e-03 5.45e-03 -2.15e-02
## 2314 -1.28e-02 -1.04e-03 1.41e-02 9.43e-03 -9.86e-03 -4.88e-03 8.29e-02
## 2315 -4.22e-02 -1.18e-02 5.03e-02 4.08e-02 -3.20e-02 -1.88e-02 2.24e-01
## 2316 1.70e-02 4.90e-03 -1.58e-02 -1.18e-02 1.03e-02 1.06e-02 -7.99e-02
## 2317 -1.20e-02 -4.72e-03 1.43e-02 1.82e-02 -5.49e-03 -1.10e-02 -4.13e-03
## 2318 -3.93e-02 -9.13e-04 8.57e-02 -7.86e-02 -8.57e-02 -6.03e-02 -3.88e-02
## 2319 -4.18e-03 1.09e-02 -2.46e-03 1.10e-02 -1.49e-03 -5.76e-03 1.33e-03
## 2320 1.16e-02 1.63e-02 -1.19e-02 8.58e-03 1.07e-02 1.93e-03 -2.84e-03
        2.89e-02 1.35e-02 -3.53e-02 1.65e-02 1.90e-02 1.50e-02 6.13e-03
## 2322 9.01e-03 2.48e-03 -6.68e-03 1.67e-02 -2.15e-03 4.53e-03 4.34e-03
## 2323 -5.13e-02 3.92e-02 5.51e-02 -1.98e-02 2.73e-02 -1.62e-02 1.23e-02
## 2324 1.15e-02 -3.30e-02 1.35e-03 -6.81e-02 -2.56e-02 1.10e-03 -4.54e-03
        2.79e-03 -3.61e-03 -2.71e-03 -7.82e-03 6.36e-03 -4.13e-03 -5.79e-03
       1.57e-02 8.54e-03 -1.69e-02 4.37e-02 9.55e-03 -7.69e-03 7.15e-03
## 2326
## 2327 -1.17e-02 2.92e-03 -1.24e-03 -3.20e-03 1.62e-02 -2.92e-03 -7.38e-03
## 2328 -3.08e-02 7.38e-02 9.28e-03 9.32e-03 -6.53e-03 -1.26e-02 -1.32e-04
## 2329 -2.68e-03 -1.16e-02 3.15e-04 4.62e-02 -1.85e-02 -2.78e-02 -5.11e-05
## 2330 -1.28e-02 -1.67e-03 2.35e-02 -1.64e-02 -3.18e-02 -1.54e-02 -1.38e-02
## 2331 -1.14e-02 2.36e-02 -3.08e-03 3.48e-02 3.17e-03 -7.39e-03 5.72e-03
        3.27e-03 -1.47e-03 -5.59e-03 -1.80e-02 2.04e-03 -1.08e-03 -3.78e-03
        1.07e-02 -7.65e-03 -1.85e-02 -2.76e-02 1.96e-02 1.06e-02 -2.99e-03
## 2333
## 2334
       1.49e-03 -4.33e-03 4.45e-04 7.08e-03 -2.03e-03 -1.53e-03 -1.97e-03
## 2335 4.71e-05 2.63e-02 4.98e-03 4.98e-02 -1.02e-03 5.97e-04 4.85e-03
## 2336 1.98e-02 1.27e-02 -2.29e-02 1.53e-02 1.02e-03 1.20e-02 5.40e-03
```

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## 2337 -9.69e-03 -3.38e-02 3.16e-02 9.09e-03 -4.51e-02 -2.91e-02 -9.61e-03
## 2338 -1.32e-02 -3.79e-02 -8.94e-03 1.00e-02 3.93e-02 6.73e-04 9.63e-04
## 2339 4.74e-03 9.25e-03 -5.10e-03 -6.87e-03 3.47e-03 3.23e-04 -4.34e-03
## 2340 3.54e-03 1.09e-02 2.55e-03 4.78e-02 -8.44e-03 6.12e-03 1.49e-02
## 2341 -5.16e-02 -2.44e-02 2.63e-02 5.22e-02 8.07e-03 -2.48e-02 -2.23e-03
## 2342 -6.64e-03 -4.41e-03 8.07e-03 6.53e-03 -4.61e-03 -5.63e-03 3.31e-04
## 2343 -2.59e-03 1.55e-02 -1.03e-02 1.92e-02 -2.97e-03 -1.39e-02 3.69e-04
## 2344 2.11e-02 5.33e-03 -2.81e-02 -6.60e-02 3.28e-02 -1.94e-02 -2.53e-02
## 2345 -2.85e-02 -4.27e-02 2.71e-02 -1.67e-02 1.29e-02 -4.09e-03 -8.77e-03
## 2346 -2.62e-02 -4.48e-02 1.60e-02 2.72e-02 1.22e-02 3.25e-03 7.59e-03
## 2347
       1.15e-01 4.84e-02 -1.66e-01 6.58e-02 -2.74e-02 1.05e-02 2.24e-03
## 2348 -1.51e-03 -6.43e-04 -7.60e-04 1.38e-03 1.98e-03 -1.55e-05 3.94e-04
## 2349
       2.28e-03 7.25e-04 -1.13e-03 -3.93e-04 -8.95e-04 9.84e-04 -4.65e-04
       1.79e-02 4.12e-02 -6.14e-03 2.97e-02 -6.72e-03 -8.26e-03 -7.52e-04
## 2350
## 2351 -2.24e-02 -2.59e-02 -8.37e-03 1.99e-02 -2.73e-02 -5.30e-02 -1.72e-02
## 2352 -1.73e-02 -8.76e-03 2.22e-02 2.13e-02 -2.19e-02 -1.53e-02 7.92e-04
## 2353 3.31e-02 5.26e-02 8.00e-03 6.60e-02 -4.97e-02 -2.93e-02 3.81e-02
## 2354 -1.83e-03 1.83e-02 -5.72e-03 1.76e-02 2.40e-02 2.54e-02 1.17e-02
## 2355 -5.21e-02 5.22e-02 8.12e-02 7.88e-02 -5.14e-02 -5.14e-02 2.06e-02
## 2356 -9.42e-03 -8.05e-03 3.06e-03 1.19e-02 3.13e-03 -6.35e-03 -1.11e-03
## 2357 -3.53e-02 6.67e-03 3.08e-02 -4.58e-02 6.69e-03 -4.70e-03 -5.22e-03
## 2358 -1.33e-02 -1.46e-02 6.04e-03 -1.26e-02 -8.12e-03 -1.33e-02 -5.17e-03
        2.29e-03 -1.48e-04 3.87e-04 4.04e-03 -9.91e-04 -4.72e-03 1.72e-03
## 2359
        9.89e-03 2.75e-02 -2.75e-02 -2.86e-04 -3.75e-04 -2.67e-03 -5.99e-04
## 2360
## 2361
       5.98e-03 -3.60e-03 -6.83e-03 -9.32e-04 1.89e-03 8.09e-04 2.52e-03
       1.47e-03 -2.51e-06 1.69e-03 1.09e-03 -3.44e-03 1.53e-04 1.18e-03
## 2363
        7.74e-03 -1.63e-02 -2.55e-03 1.01e-02 1.51e-02 1.39e-02 9.64e-03
       8.16e-03 -4.01e-03 1.14e-03 -1.04e-03 -4.32e-03 -4.38e-03 9.52e-04
       3.40e-02 -1.53e-02 -2.47e-02 -2.68e-02 2.35e-03 2.17e-02 9.97e-03
## 2365
## 2366 -3.51e-03 5.03e-03 -3.26e-03 5.68e-03 3.93e-03 2.61e-03 -8.11e-04
## 2367 -5.68e-03 -7.52e-03 -1.40e-02 -1.93e-02 1.48e-02 1.45e-02 -1.03e-02
## 2368 8.26e-03 8.62e-03 -3.15e-02 1.46e-02 1.52e-02 -1.48e-02 -4.18e-02
        1.13e-03 -2.14e-03 5.33e-05 1.05e-03 1.21e-03 -1.72e-03 -1.16e-04
## 2370 -9.48e-03 1.63e-03 -1.24e-03 2.92e-03 1.52e-02 9.24e-03 -3.69e-03
        9.35e-04 -2.45e-03 1.21e-04 -1.27e-04 3.56e-05 -7.65e-04 2.29e-04
       1.37e-03 -7.16e-04 5.85e-04 1.47e-03 2.63e-04 9.43e-04 1.89e-03
## 2372
## 2373
       1.50e-03 1.96e-03 -6.74e-03 4.46e-03 -2.70e-03 -7.15e-03 1.17e-03
## 2374 1.12e-03 2.25e-03 -2.74e-03 1.50e-03 3.21e-03 -9.10e-04 5.34e-03
        1.65e-03 -3.39e-03 -9.81e-04 -4.66e-04 4.74e-04 -3.41e-05 4.59e-04
## 2376 -1.01e-02 7.82e-03 -3.99e-03 -4.79e-03 1.01e-02 8.86e-03 -1.30e-03
## 2377 -1.32e-03 -3.99e-04 2.29e-03 3.92e-03 -3.86e-03 -2.73e-03 1.20e-03
## 2378 -2.78e-03 3.85e-03 -4.64e-03 -3.05e-03 3.51e-03 3.25e-03 -1.99e-03
## 2379 -3.69e-03 -1.99e-03 4.17e-03 2.47e-03 -3.67e-04 -1.72e-03 2.39e-04
## 2380 8.95e-04 -7.81e-04 8.61e-04 -3.90e-04 -1.37e-03 3.72e-04 -7.91e-03
        3.86e-03 1.13e-03 1.02e-04 6.33e-04 -5.98e-03 -4.68e-03 3.37e-04
        3.67e-04 4.91e-03 -4.09e-03 9.22e-04 4.75e-03 2.49e-03 -2.85e-03
## 2382
## 2383
       2.09e-02 -3.41e-02 7.04e-03 5.02e-03 -1.22e-02 2.72e-02 -7.33e-02
## 2384 -1.53e-04 2.02e-04 3.18e-04 9.06e-05 -1.19e-04 2.91e-05 6.58e-05
## 2385 -1.87e-02 -2.08e-03 1.20e-02 -6.73e-04 4.36e-04 1.42e-02 -9.34e-03
## 2386
       9.53e-03 -2.26e-04 -2.32e-02 -3.64e-02 -2.24e-02 -1.47e-02 -1.48e-02
## 2387 -7.64e-03 1.44e-02 1.37e-02 -4.17e-03 -8.88e-03 -2.64e-03 1.77e-03
## 2388 -6.78e-03 -1.61e-03 2.31e-03 -5.00e-03 1.63e-03 1.05e-02 2.87e-03
## 2389 1.07e-04 3.08e-04 -4.98e-06 -3.08e-04 1.94e-05 2.26e-04 1.15e-04
## 2390 3.14e-03 1.98e-03 9.15e-03 2.87e-03 -3.24e-03 -6.14e-03 -2.06e-03
```

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## 2391 8.51e-03 -7.70e-03 -2.05e-02 -2.33e-02 1.76e-02 2.32e-02 1.32e-03
## 2392 -3.71e-03 -7.47e-03 2.11e-03 -2.97e-03 1.10e-03 1.55e-02 -3.13e-02
## 2393 -2.77e-04 -9.45e-04 1.47e-04 5.96e-05 -5.12e-05 -1.71e-04 -4.06e-04
## 2394 -4.62e-03 -3.34e-02 -1.78e-03 1.78e-02 5.36e-03 -2.14e-03 -3.60e-03
## 2395 3.61e-02 8.60e-02 -3.93e-02 -2.43e-02 1.38e-02 8.72e-02 1.78e-02
## 2396 -7.40e-03 1.28e-02 1.91e-03 -6.77e-03 2.00e-02 1.01e-02 3.20e-03
## 2397 -9.70e-04 6.29e-03 8.35e-03 -1.34e-02 -1.34e-02 2.98e-02 1.28e-02
## 2398 4.58e-04 1.05e-03 -1.71e-02 -5.63e-03 2.17e-02 8.78e-03 -2.29e-03
## 2399 -1.86e-03 -6.26e-03 3.82e-03 2.63e-03 -2.00e-02 -7.95e-03 1.94e-03
## 2400 -1.74e-04 -1.89e-03 2.80e-03 1.11e-03 -2.54e-03 9.25e-03 1.09e-03
## 2401 -4.30e-05 -6.98e-05 3.21e-05 -1.41e-04 9.06e-05 -3.11e-04 -2.47e-05
## 2402 7.59e-05 5.71e-05 3.60e-03 -6.61e-04 -3.51e-03 -2.06e-03 -2.74e-04
## 2403 -5.75e-04 2.66e-02 -6.78e-03 -1.38e-02 7.68e-03 -3.67e-03 8.80e-03
## 2404 1.53e-03 -1.30e-02 1.03e-02 6.95e-03 -3.35e-02 1.43e-02 6.21e-03
## 2405 3.56e-03 -1.98e-04 -1.75e-02 1.73e-03 1.40e-02 3.63e-03 6.05e-04
## 2406 -9.38e-04 -9.55e-05 1.09e-03 2.44e-04 -7.26e-04 5.40e-04 3.73e-04
       9.28e-03 -9.35e-03 9.92e-03 -4.74e-03 -1.52e-02 4.90e-03 9.98e-04
## 2407
## 2408 8.78e-03 2.03e-02 -3.16e-02 -3.57e-03 2.80e-02 1.98e-02 -1.51e-02
## 2409 2.21e-03 -8.14e-03 9.07e-03 7.48e-03 -1.26e-02 2.68e-02 9.93e-03
## 2410 -1.39e-04 2.48e-03 -3.37e-04 1.69e-03 5.34e-03 -2.69e-03 -1.38e-03
## 2411 2.31e-02 -2.61e-03 -5.70e-03 -9.72e-03 2.71e-02 5.74e-03 -1.31e-03
## 2412 1.37e-02 2.97e-04 -4.22e-02 1.78e-07 4.23e-02 2.87e-02 -2.73e-03
## 2413 -4.72e-03 1.29e-02 -3.02e-04 -2.73e-03 5.16e-04 -1.48e-02 -1.35e-03
## 2414 6.71e-04 3.58e-03 2.58e-03 9.26e-03 -6.98e-03 8.35e-03 3.94e-03
## 2415 3.35e-02 -3.30e-02 -1.66e-02 4.37e-02 2.76e-03 -3.28e-02 -1.72e-02
## 2416 -6.51e-03 -1.10e-02 1.91e-03 -8.95e-03 1.36e-02 -8.86e-04 -2.00e-03
## 2417 -1.17e-02 -6.61e-03 -2.43e-03 1.60e-02 -1.01e-02 6.96e-03 5.70e-03
## 2418 -2.01e-02 -5.89e-02 -8.35e-03 1.30e-02 -2.42e-03 -2.70e-02 1.02e-02
## 2419 -9.81e-03 8.67e-03 3.31e-02 7.12e-03 -1.97e-02 -3.01e-02 -5.87e-03
## 2420 -2.36e-03 3.15e-02 -2.36e-02 -4.38e-02 1.31e-02 3.64e-02 8.90e-03
## 2421 -7.62e-04 -7.00e-05 3.88e-04 -3.55e-03 -5.14e-03 6.08e-03 -6.78e-04
## 2422 -1.29e-02 4.59e-02 1.75e-02 9.95e-03 -4.60e-03 3.82e-03 6.33e-03
## 2423 1.78e-03 2.61e-02 -9.48e-03 -1.84e-02 -2.19e-02 1.35e-02 9.12e-03
## 2424 3.75e-03 -3.89e-03 -9.66e-03 -1.54e-02 -1.09e-02 2.95e-02 6.15e-03
## 2425 -3.32e-03 3.52e-04 1.10e-02 2.92e-03 -1.07e-02 -6.14e-03 -4.13e-04
## 2426 -3.57e-03 -5.23e-02 -1.06e-02 2.74e-02 2.20e-02 3.84e-02 1.58e-03
## 2427 8.33e-03 -6.06e-03 1.70e-02 -4.73e-03 -3.89e-02 4.60e-02 1.75e-02
## 2428 -1.28e-02 -2.41e-03 -1.52e-02 -3.67e-03 1.99e-02 1.48e-02 5.97e-03
## 2429 2.19e-03 -5.19e-03 -2.00e-03 -9.25e-03 3.82e-03 1.40e-02 3.47e-03
## 2430 1.29e-02 7.26e-03 -6.79e-03 -1.12e-02 1.64e-02 1.80e-02 2.73e-03
## 2431 -2.69e-03 -3.31e-03 4.97e-04 2.32e-03 3.25e-04 7.04e-03 2.43e-03
## 2432 -2.90e-03 -1.96e-03 3.58e-03 6.69e-03 -6.12e-03 1.53e-02 6.78e-03
## 2433 7.45e-03 -1.17e-02 -5.12e-04 -1.22e-03 -7.82e-05 2.23e-02 -1.15e-02
## 2434 -3.76e-05 -1.14e-02 -8.57e-03 -1.37e-02 2.69e-02 2.99e-02 9.66e-03
## 2435 -8.40e-04 -7.53e-03 7.58e-03 8.55e-03 -6.67e-03 8.82e-03 4.88e-03
       2.33e-02 3.43e-02 7.49e-03 1.77e-02 7.25e-03 -8.02e-02 -4.40e-02
## 2436
## 2437
        9.47e-03 -1.77e-02 5.06e-04 -7.99e-03 -7.24e-03 4.54e-03 -1.34e-03
       1.94e-02 1.72e-02 -8.21e-03 -2.12e-02 1.72e-03 1.74e-02 3.51e-03
## 2438
## 2439
       5.77e-03 2.73e-02 -2.08e-02 -1.02e-02 4.85e-02 -1.92e-02 -1.16e-02
        1.02e-02 7.32e-02 -5.82e-02 -1.71e-02 4.12e-02 5.50e-02 1.46e-02
## 2440
## 2441 -8.59e-03 2.08e-03 1.15e-02 1.37e-02 -9.80e-03 -1.75e-02 -1.89e-03
## 2442 4.38e-04 3.63e-02 5.03e-03 4.90e-02 -2.95e-02 -4.31e-02 -2.35e-03
## 2443 -9.78e-03 -2.27e-02 -1.17e-02 -3.31e-02 1.55e-02 -9.99e-03 -1.43e-02
## 2444 -4.93e-03 8.54e-02 -1.17e-01 5.03e-03 1.31e-01 1.36e-01 -3.21e-02
```

```
## 2445 3.09e-04 -3.70e-04 2.30e-04 -5.50e-04 -1.49e-04 -1.09e-03 -3.67e-04
## 2446 -1.73e-02 1.65e-03 1.64e-02 3.73e-04 -7.33e-03 3.95e-02 1.02e-02
## 2447 -1.99e-02 1.41e-02 6.09e-03 -4.24e-03 -1.60e-02 5.73e-03 7.53e-03
       5.24e-03 4.60e-03 -2.38e-03 -1.07e-03 -7.27e-03 -1.08e-02 -3.50e-03
        5.21e-03 -2.06e-03 -1.86e-02 -1.88e-02 8.58e-03 1.51e-02 2.34e-04
       1.29e-02 -1.41e-02 -2.20e-02 -9.47e-04 -6.51e-04 9.81e-03 -8.61e-04
## 2451 -2.30e-02 1.52e-02 2.72e-02 1.10e-02 1.19e-02 -9.10e-03 -1.04e-03
        1.86e-03 -3.88e-03 -1.44e-03 3.62e-04 3.08e-03 -8.23e-04 -4.01e-05
## 2453
        1.50e-02 5.67e-03 -2.72e-02 6.32e-03 -9.55e-04 3.03e-02 9.78e-03
## 2454 -3.64e-03 -1.53e-04 2.26e-03 2.35e-03 -2.86e-03 -7.73e-04 2.04e-05
## 2455
        7.24e-04 7.50e-03 -1.62e-02 2.34e-02 9.89e-03 -1.32e-02 2.67e-03
        4.42e-06 -2.54e-06 -9.51e-06 3.53e-06 -9.77e-06 -8.48e-08 -1.19e-05
## 2456
## 2457 -3.13e-03 -4.56e-03 -3.13e-03 -2.26e-03 -3.65e-03 -2.08e-03 -7.02e-03
## 2458
       2.36e-03 7.05e-05 3.38e-03 5.34e-03 -6.66e-04 4.87e-03 1.07e-03
        1.52e-02 7.34e-04 -8.94e-03 -1.64e-02 1.62e-03 9.73e-03 1.95e-04
## 2459
        4.36e-04 -2.38e-06 -1.73e-04 -3.80e-04 2.53e-03 4.56e-04
                                                                 8.05e-04
        3.88e-03 2.94e-03 1.93e-02 1.72e-02 -8.80e-03 2.80e-03
## 2461
                                                                  7.78e-03
## 2462 -3.70e-04 1.28e-03 -1.03e-03 5.77e-03 2.00e-03 -1.26e-03
## 2463 -9.86e-04 2.33e-04 1.32e-03 5.05e-04 -4.37e-04 -6.14e-04 1.11e-05
## 2464 -2.80e-03 -8.26e-03 3.80e-03 -7.47e-02 2.32e-02 3.81e-02 1.33e-02
## 2465
        2.73e-02 2.42e-03 -1.00e-02 5.12e-04 1.06e-02 -4.65e-03 -1.29e-02
        8.72e-04 -1.35e-03 -3.81e-03 2.31e-03 9.00e-04 1.37e-03 -3.47e-03
        8.81e-05 5.36e-04 3.53e-03 2.79e-03 -2.52e-04 9.82e-04 -2.25e-03
## 2467
        4.70e-03 2.36e-03 5.38e-03 1.40e-02 2.96e-03 1.44e-03 6.28e-03
## 2468
## 2469
        2.41e-04 1.40e-04 3.66e-04 -6.58e-04 2.05e-04 4.78e-04 1.18e-03
## 2470
        8.54e-03 1.97e-03 -6.60e-03 -6.33e-03 9.13e-03 -2.18e-03 1.83e-03
        5.04e-03
                 1.56e-04 -1.16e-04 1.70e-03 8.85e-03 -2.28e-03 3.44e-03
## 2471
## 2472
        1.66e-03
                 1.66e-03 1.20e-03 -1.58e-03 3.47e-03 -4.06e-03 -7.62e-04
       8.02e-04 1.66e-03 4.97e-03 2.11e-03 -4.39e-04 -7.04e-04 2.93e-03
## 2473
## 2474 3.03e-03 4.84e-04 -9.18e-04 -3.55e-03 3.40e-03 1.58e-03 2.37e-03
## 2475 -2.03e-03 1.75e-03 1.72e-03 2.05e-03 2.06e-03 -1.07e-03 -7.93e-03
## 2476 -6.76e-04 2.31e-03 1.41e-02 -8.29e-03 -1.97e-03 4.35e-03 1.35e-02
## 2477
        2.23e-02 -9.70e-04 -1.02e-02 -1.88e-02 8.12e-03 1.03e-02 -8.52e-04
       6.80e-04 -2.18e-03 -8.49e-03 -7.34e-03 6.00e-03 2.98e-03 -2.54e-03
## 2478
## 2479 -4.12e-03 -3.28e-05 3.54e-03 5.84e-03 8.64e-04 -2.12e-03 -1.72e-03
       1.40e-02 1.64e-03 -5.87e-03 -1.55e-02 1.94e-02 4.81e-03 -5.66e-03
## 2480
        1.50e-02 5.46e-03 9.32e-04 -1.22e-03 -2.06e-02 -7.41e-03 2.91e-03
## 2482
       5.24e-03 -1.32e-03 2.07e-04 4.79e-03 4.32e-03 3.93e-03 1.08e-02
        6.83e-05 -1.25e-05 -1.90e-04 4.06e-04 -4.49e-04 -3.67e-06 -1.52e-04
        4.17e-03 1.47e-03 -1.71e-03 -5.14e-03 -1.34e-03 -1.27e-03 -1.42e-04
## 2484
        2.41e-02 2.96e-03 -6.86e-03 -2.28e-02 1.54e-02 7.87e-03 -2.37e-04
## 2485
## 2486
        4.51e-03 6.83e-04 -3.43e-05 -7.71e-03 1.58e-03 1.76e-03 1.73e-03
## 2487
        3.72e-03 7.57e-04 2.49e-03 -7.07e-03 3.24e-03 -1.20e-04 -2.22e-03
## 2488 -4.29e-04 -9.47e-05 -1.94e-04 -1.11e-04 1.11e-04 -1.06e-04 -3.05e-04
        5.06e-03 -3.93e-04 9.65e-04 -1.25e-02 1.71e-02 3.86e-03 7.92e-03
        3.20e-04 -4.16e-04 -4.96e-04 -1.73e-03 -6.52e-05 9.31e-04 2.51e-04
## 2490
## 2491
        5.86e-03 -1.66e-03 -1.29e-02 -7.11e-03 3.85e-04 2.78e-03 -7.49e-03
## 2492
        2.03e-02 3.83e-05 -1.26e-02 -1.05e-02 -1.23e-02 -4.38e-02 -1.76e-02
## 2493
        2.28e-03 2.38e-03 1.29e-02 3.70e-05 3.72e-03 -2.58e-03 7.76e-03
## 2494
        4.88e-04 7.91e-04 -7.63e-06 -3.87e-03 6.90e-03 -2.15e-03 1.09e-03
        4.32e-03 4.13e-05 7.72e-03 4.53e-03 4.31e-03 -3.53e-04 4.22e-03
## 2495
       2.70e-03 -4.70e-03 -1.19e-02 -9.49e-03 8.74e-03 5.88e-03 -6.27e-03
       1.11e-03 5.41e-04 4.20e-04 1.33e-03 -2.20e-04 -8.93e-04 7.70e-04
## 2498 -1.79e-03 4.88e-03 9.77e-03 1.40e-02 -3.42e-03 -1.17e-02 -2.83e-03
```

```
## 2499 2.33e-03 -4.40e-04 4.04e-03 -1.00e-02 3.22e-03 2.67e-03 3.05e-03
## 2500 -7.49e-03 4.45e-03 3.55e-03 9.80e-03 5.26e-03 1.36e-03 1.47e-02
       2.43e-02 -7.80e-03 5.73e-03 3.09e-02 1.25e-03 -1.91e-02 -5.30e-02
## 2502
        1.75e-04 -1.02e-05 -1.41e-04 -2.50e-04 1.31e-04 1.08e-04 8.94e-05
        4.26e-03 3.46e-03 1.03e-03 1.30e-02 9.45e-03 -1.20e-04 -2.31e-02
       8.12e-03 1.20e-04 -3.73e-03 -8.67e-03 4.30e-03 4.46e-03 2.46e-03
## 2504
        7.43e-03 -4.01e-03 -9.31e-03 -9.48e-03 -5.52e-03 5.62e-03 -4.93e-03
        1.84e-02 4.43e-03 -1.53e-02 -4.77e-03 1.53e-03 -5.78e-03 -1.68e-04
## 2507 -4.18e-06 -2.25e-05 -1.00e-04 -1.99e-04 -3.45e-04 9.13e-05 -1.71e-04
## 2508 7.10e-04 -2.79e-03 -1.07e-03 -1.03e-02 -6.70e-03 4.68e-03 -6.59e-03
## 2509
        1.11e-02 1.66e-03 -2.12e-03 -5.63e-03 5.91e-03 3.16e-03 4.05e-03
## 2510 -1.08e-04 -1.42e-04 3.11e-04 -1.80e-04 -2.37e-04 4.12e-04 1.86e-03
## 2511 3.05e-04 6.88e-04 3.47e-03 5.07e-04 4.14e-03 1.46e-03 4.51e-03
## 2512 -1.59e-03 -2.06e-04 1.17e-03 1.73e-03 -8.77e-03 4.83e-04 7.82e-03
## 2513 -5.09e-03 -6.90e-04 6.71e-05 1.67e-03 -1.51e-03 -2.96e-05 -1.69e-03
## 2514 -6.10e-04 -2.85e-04 1.89e-03 -2.77e-03 -4.20e-04 -3.36e-04 -1.01e-03
## 2515 3.85e-03 6.84e-04 5.02e-03 7.17e-03 9.81e-03 1.06e-03 3.64e-03
## 2516 6.94e-03 1.55e-03 -1.68e-04 3.59e-03 8.97e-03 8.74e-04 -5.36e-03
## 2517 -2.88e-03 -5.51e-03 6.97e-03 1.24e-03 -2.73e-04 7.53e-03 -3.21e-03
## 2518 5.24e-04 -7.49e-05 4.34e-04 8.28e-04 -1.25e-04 7.36e-04 -1.07e-03
## 2519 -3.10e-03 -1.09e-03 -2.72e-03 -7.71e-03 1.96e-03 -1.89e-03 -2.16e-03
## 2520 -6.61e-03 -2.76e-03 -5.35e-03 -7.18e-03 2.42e-03 1.95e-03 -3.41e-03
## 2521 -9.53e-04 1.88e-03 -2.34e-03 7.50e-03 2.10e-03 -1.64e-03 3.02e-03
        1.61e-02 4.65e-03 -4.63e-04 6.97e-03 3.34e-03 9.30e-04 7.89e-03
## 2522
## 2523
       1.07e-02 4.99e-03 -1.81e-02 2.20e-02 1.56e-02 -1.93e-03 3.81e-03
## 2524
        4.07e-03 1.75e-03 1.50e-03 -8.95e-04 4.78e-03 -1.07e-03 3.18e-03
## 2525
        2.34e-02 -8.85e-03 -3.82e-02 -1.59e-02 2.59e-02 -1.55e-03 -2.34e-03
## 2526
        1.65e-02 -3.74e-03 -2.62e-02 -4.93e-02 2.52e-02 3.42e-02 2.04e-02
        1.75e-03 5.95e-04 3.16e-03 1.59e-04 1.58e-03 1.44e-03 2.38e-03
## 2527
## 2528 -5.95e-04 -1.90e-03 2.86e-03 1.54e-04 -6.17e-03 7.45e-03 4.62e-05
        6.78e-03 2.32e-03 1.51e-03 8.97e-03 2.13e-03 1.35e-04 2.17e-03
## 2529
## 2530
       1.90e-03 7.11e-04 2.68e-03 2.22e-03 -7.03e-04 2.29e-03 -3.88e-03
## 2531 -1.17e-02 -1.67e-03 1.45e-02 1.38e-02 1.35e-02 -1.04e-02 -5.21e-04
## 2532 -4.04e-03 5.45e-03 5.85e-03 -1.49e-03 4.86e-02 1.66e-03 2.06e-02
## 2533 -6.20e-05 6.02e-04 -1.05e-03 1.91e-03 1.69e-04 -1.79e-03 -4.81e-04
## 2534 -6.21e-04 -5.01e-04 -4.25e-03 -5.73e-03 2.52e-03 -1.79e-03 -3.17e-03
       6.97e-03 -8.22e-04 -1.87e-03 2.09e-03 1.41e-02 5.71e-03 5.09e-03
        1.83e-04 4.51e-04 9.24e-04 8.40e-04 -1.83e-03 -2.34e-03 -8.13e-04
        6.98e-04 -3.60e-06 8.08e-04 -3.69e-04 -1.18e-04 7.18e-04 -8.08e-05
## 2538 -2.59e-02 1.02e-02 3.43e-02 -9.09e-03 -1.17e-02 2.47e-02 1.06e-02
       6.92e-03 -6.80e-03 -1.02e-02 1.95e-03 4.99e-03 -1.07e-02 -6.90e-03
        1.05e-02 -3.55e-02 -2.38e-02 -3.93e-03 4.52e-02 -1.19e-02 -8.13e-03
## 2540
        3.48e-02 4.69e-03 -2.85e-03 -1.12e-03 2.60e-03 -4.45e-02 -2.76e-02
       1.50e-02 2.71e-02 -1.14e-02 1.46e-03 -8.45e-03 -5.04e-03 -6.85e-03
## 2542
## 2543 -1.34e-02 -1.24e-02 6.44e-03 1.32e-02 1.52e-02 -3.06e-02 -7.27e-03
## 2544 -9.41e-03 -1.60e-02 1.26e-02 4.88e-03 -1.14e-03 1.61e-02 8.62e-03
## 2545 -1.99e-02 3.12e-02 1.46e-02 -1.14e-02 -2.31e-02 6.95e-03 1.17e-02
## 2546 -9.32e-03 3.64e-02 -5.55e-02 -3.00e-03 8.19e-03 8.59e-02 3.16e-02
## 2547 -2.34e-03 -8.33e-04 3.15e-03 -1.28e-03 -1.46e-03 3.61e-03 2.42e-03
## 2548 -1.76e-04 6.68e-03 1.85e-03 -3.18e-03 -9.91e-03 1.76e-02 7.42e-03
        4.04e-02 -3.30e-02 -2.34e-02 -1.85e-02 8.88e-02 -9.52e-02 -6.65e-02
## 2549
## 2550 3.45e-03 -1.49e-02 -9.84e-03 -6.98e-03 -7.60e-03 2.76e-02 9.35e-03
## 2551 6.60e-05 -7.03e-06 -1.03e-04 -1.04e-04 1.38e-04 -7.88e-05 -7.91e-05
## 2552 3.56e-02 -1.15e-02 -4.39e-02 -2.37e-02 1.47e-02 -3.30e-02 -2.33e-02
```

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## 2553 3.57e-03 5.22e-03 2.50e-03 -1.48e-03 2.52e-03 -2.09e-03 -3.43e-03
## 2554 -2.09e-02 7.49e-02 1.67e-02 -1.13e-02 2.01e-02 4.98e-02 1.94e-02
## 2555 -7.42e-04 -1.62e-03 1.05e-03 1.01e-03 2.05e-04 -1.88e-04 -1.34e-04
## 2556 -2.22e-04 2.79e-04 5.94e-05 -2.88e-04 2.60e-04 7.80e-05 -2.36e-05
## 2557 -4.76e-02 4.43e-02 4.84e-02 -7.21e-04 -1.16e-02 3.19e-02 2.48e-02
## 2558 2.35e-03 2.34e-03 -4.32e-03 -1.02e-02 2.11e-03 1.01e-02 -8.46e-04
## 2559 -1.79e-02 -5.24e-04 2.39e-02 3.69e-03 1.13e-02 1.61e-02 5.43e-03
       3.12e-02 -2.70e-02 -2.80e-02 1.38e-02 -1.72e-02 -4.40e-02 -1.68e-02
        2.14e-03 -2.57e-03 -1.11e-03 6.54e-04 -1.37e-03 -1.99e-03 8.40e-05
## 2562 6.16e-04 -1.92e-03 2.10e-04 1.34e-03 -1.30e-03 -2.49e-03 -7.93e-04
## 2563 -5.40e-02 8.59e-02 6.60e-02 -2.32e-02 -4.78e-02 5.09e-02 4.19e-02
## 2564 -5.80e-02 4.37e-02 7.42e-02 -1.87e-02 -1.21e-02 1.01e-01 5.14e-02
## 2565 -4.31e-02 2.82e-02 2.51e-02 -1.05e-02 3.08e-02 4.64e-02 1.99e-02
## 2566 -1.03e-02 7.90e-03 1.01e-02 8.16e-04 2.90e-03 9.33e-03 5.32e-03
## 2567 -4.78e-02 1.86e-02 6.68e-02 1.09e-03 -2.96e-02 2.46e-02 2.23e-02
## 2568 3.12e-02 -1.79e-02 -3.98e-02 7.74e-04 1.46e-03 -1.65e-02 -1.11e-02
## 2569 -6.98e-03 8.93e-03 2.83e-03 2.73e-03 -1.11e-03 -6.25e-04 1.13e-03
## 2570 1.64e-04 1.87e-03 -4.32e-04 -7.00e-04 -2.72e-04 9.36e-04 -6.17e-05
## 2571 -6.11e-03 1.47e-03 -1.33e-04 1.00e-03 -3.37e-04 3.27e-03 2.01e-03
## 2572 2.23e-03 -5.98e-03 -5.98e-03 -3.49e-03 1.37e-02 -3.87e-03 -6.67e-05
## 2573 -6.44e-02 1.39e-02 6.64e-02 -2.35e-03 1.25e-02 2.19e-02 1.68e-02
## 2574 -2.10e-02 2.18e-02 1.46e-02 -1.58e-03 5.36e-03 5.83e-03 9.92e-04
       1.01e-04 1.12e-02 6.66e-03 -9.54e-03 2.02e-03 1.07e-02 -2.30e-03
## 2575
        1.07e-02 -1.21e-02 -1.04e-02 1.18e-03 -1.77e-03 -1.05e-02 -4.86e-03
## 2577
       1.71e-02 -6.80e-03 -1.46e-02 5.55e-03 3.51e-04 -6.66e-03 -3.77e-03
## 2578 2.86e-03 -1.62e-03 -3.31e-04 -4.73e-04 -1.17e-03 -5.85e-04 5.06e-05
## 2579 -8.44e-02 2.06e-02 7.33e-02 -2.42e-02 5.33e-02 5.34e-02 2.73e-02
## 2580 -2.38e-02 8.80e-02 3.39e-02 4.49e-03 -3.62e-02 7.02e-04 -6.36e-04
## 2581 -1.35e-02 2.95e-02 -1.92e-02 -2.59e-02 3.61e-02 9.88e-03 8.95e-04
## 2582 -6.77e-03 5.82e-03 2.32e-03 -1.20e-03 5.61e-03 6.34e-03 2.10e-03
## 2583 -3.23e-03 2.83e-03 8.80e-04 -1.68e-04 2.91e-03 1.40e-03 9.66e-05
## 2584 -7.86e-03 2.17e-02 1.66e-02 8.89e-03 -1.59e-02 8.61e-03
                                                                 7.87e-03
## 2585 -2.88e-02 1.55e-02 2.19e-02 -4.64e-03 -3.82e-03 1.59e-02 6.54e-03
## 2586 2.82e-04 -6.19e-04 -2.15e-04 5.73e-04 -3.59e-04 -8.99e-04 -5.45e-05
## 2587 -5.36e-02 2.67e-02 6.18e-02 -6.02e-03 -1.82e-02 2.04e-02 2.23e-02
## 2588 -1.68e-02 3.09e-03 1.65e-02 -2.11e-03 5.61e-03 4.26e-03 2.87e-03
## 2589 1.27e-02 -2.38e-02 1.11e-02 2.00e-02 -1.81e-02 -7.03e-03 5.15e-03
## 2590 -2.72e-02 1.05e-01 3.42e-02 -1.33e-02 -2.22e-02 4.47e-02 1.70e-02
## 2591 -2.24e-02 1.86e-02 1.62e-02 -8.09e-03 5.03e-03 7.20e-03
## 2592 1.07e-02 -1.25e-02 2.46e-03 2.15e-03 4.81e-04 1.33e-02 3.99e-03
## 2593 6.96e-02 -3.41e-02 -2.74e-02 1.55e-02 -1.01e-02 -3.32e-02 -8.65e-03
## 2594 -9.06e-02 2.09e-02 1.49e-01 2.07e-02 -7.19e-02 5.85e-02 5.87e-02
## 2595 2.02e-03 -1.21e-03 -1.33e-03 4.39e-04 4.06e-04 -5.79e-04 9.18e-05
## 2596 -4.97e-02 1.00e-01 1.98e-02 -1.24e-02 4.66e-02 7.87e-02 3.45e-02
## 2597 -3.27e-02 2.43e-02 2.79e-02 -5.80e-03 1.86e-03 3.25e-02 1.54e-02
## 2598 -3.62e-02 1.34e-01 1.27e-02 -5.26e-02 -5.04e-02 1.02e-01
                                                                 3.77e-02
## 2599 -7.77e-03 1.14e-02 8.31e-03 6.11e-04 -3.61e-03 1.16e-02
                                                                 4.63e-03
## 2600 -1.75e-01 7.96e-02 1.81e-01 9.16e-02 -6.63e-02 2.39e-02 3.34e-02
## 2601 -1.54e-02 2.47e-02 8.67e-03 3.48e-03 1.10e-02 2.03e-02 2.30e-03
## 2602
        1.58e-02 5.79e-02 4.53e-02 -3.25e-02 -3.30e-02 4.46e-02 -5.20e-03
       2.89e-03 3.72e-03 -1.75e-03 -1.40e-03 6.21e-03 1.93e-02 3.67e-03
## 2604 6.17e-04 -1.66e-03 1.04e-03 1.85e-03 -6.73e-04 1.92e-04 9.37e-04
## 2605 1.41e-02 -2.13e-02 -7.19e-05 1.23e-02 1.03e-02 9.96e-03 9.75e-04
## 2606 8.97e-03 4.23e-02 -1.28e-02 -9.84e-03 -7.50e-03 3.06e-03 -6.73e-03
```

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## 2607 2.88e-03 -3.65e-03 1.13e-04 8.28e-05 -1.04e-03 2.04e-03 1.08e-03
## 2608 1.00e-03 -9.67e-03 -3.21e-03 4.96e-03 3.00e-03 -1.22e-02 -4.42e-03
## 2609 -1.04e-03 -1.42e-03 -2.58e-04 2.03e-03 4.52e-05 -1.46e-03 5.40e-04
## 2610 2.55e-02 1.80e-02 -7.25e-03 4.19e-02 1.16e-02 -4.75e-03 -6.58e-03
## 2611 -2.10e-02 2.33e-02 -7.60e-03 -1.17e-02 4.66e-02 2.08e-02 8.38e-04
## 2612 -4.34e-04 -1.97e-04 3.63e-04 -2.29e-03 -3.09e-04 6.59e-04 -1.89e-05
## 2613 -4.92e-04 4.79e-03 5.20e-03 -1.10e-02 -4.79e-04 6.31e-03 3.82e-03
## 2614 -4.54e-04 1.71e-04 8.16e-04 1.57e-04 -3.94e-04 -9.00e-05 -1.38e-04
## 2615 2.00e-03 -2.03e-03 -3.45e-04 6.49e-04 -4.12e-03 -7.54e-03 -1.40e-03
## 2616 -1.25e-02 2.14e-02 1.18e-02 -7.19e-03 -4.67e-03 2.48e-03 -2.04e-03
## 2617 -2.17e-02 2.40e-02 2.64e-02 -1.90e-02 -6.45e-03 3.08e-02 1.21e-02
## 2618 -3.86e-02 3.86e-02 5.39e-02 5.64e-04 -2.56e-02 3.79e-02 2.20e-02
## 2619 -3.14e-03 5.47e-03 -1.26e-03 1.31e-03 -3.46e-03 -3.93e-03 -5.39e-03
## 2620 1.03e-03 1.77e-02 9.71e-03 -2.52e-02 3.04e-03 1.04e-02 -4.22e-03
## 2621 -2.77e-03 -1.33e-03 3.31e-03 -2.95e-03 -2.07e-03 -7.07e-05 9.84e-04
        1.29e-03 -5.88e-03 3.75e-04 9.85e-03 3.59e-03 1.32e-02 6.33e-03
       5.58e-04 -1.61e-04 -7.18e-04 -4.82e-04 7.14e-04 -1.38e-03 -8.86e-04
## 2623
## 2624 9.53e-03 1.28e-02 -7.76e-03 -9.27e-03 -9.99e-03 -1.96e-03 1.78e-03
## 2625 -1.29e-03 2.60e-03 3.65e-03 -5.23e-03 -5.93e-03 -1.27e-03 1.47e-03
## 2626 -2.25e-02 7.37e-02 2.07e-03 8.51e-03 -6.31e-02 7.54e-02 1.64e-02
## 2627 -4.19e-02 -1.06e-03 2.77e-02 1.05e-02 -1.09e-02 5.22e-02 -8.21e-03
## 2628 -1.57e-02 -3.84e-04 6.45e-03 6.77e-03 4.83e-03 -5.39e-03 1.46e-03
## 2629 -1.63e-02 -1.12e-02 1.56e-02 1.11e-04 -6.35e-04 1.99e-02 -7.40e-03
## 2630 -4.15e-03 2.26e-04 2.51e-04 2.60e-03 4.29e-03 -9.05e-05 1.09e-04
## 2631 -2.89e-02 -2.38e-02 1.23e-02 1.53e-02 2.46e-02 -6.46e-04 -1.72e-04
## 2632 -2.07e-04 -5.28e-04 -2.75e-04 -5.59e-04 4.11e-04 -1.12e-03 3.38e-04
## 2633 -3.29e-02 -3.41e-02 4.57e-03 1.43e-02 4.53e-02 1.28e-02 -3.81e-03
## 2634 6.11e-04 -3.07e-04 5.12e-04 1.37e-03 -1.93e-04 3.49e-03 6.75e-04
## 2635 -2.69e-03 4.29e-03 5.92e-03 1.22e-02 5.94e-03 -1.05e-02 -1.78e-03
## 2636
       8.82e-03 2.86e-02 -2.68e-02 6.79e-03 -2.49e-02 2.89e-02 -1.31e-03
## 2637
        1.29e-02 9.59e-03 6.04e-02 3.06e-02 -2.15e-02 -1.81e-02 1.15e-02
## 2638
        1.81e-03 3.39e-03 -3.01e-03 1.74e-03 4.19e-03 -2.56e-04 -1.71e-03
## 2639
        1.48e-02 -5.32e-03 8.36e-04 -5.76e-03 -2.46e-02 -1.33e-02 -7.50e-03
## 2640 -3.30e-02 -2.01e-03 1.78e-02 -4.16e-03 1.33e-03 4.21e-02 -1.47e-02
## 2641 -3.70e-03 1.45e-04 2.35e-03 4.34e-03 5.00e-03 1.77e-03 7.45e-04
## 2642 -3.20e-02 9.30e-02 -9.97e-03 -1.85e-02 3.17e-02 8.94e-02 2.65e-02
## 2643 -2.71e-02 -1.01e-02 2.57e-02 9.26e-03 -2.77e-02 3.96e-02 2.47e-02
## 2644 -3.34e-03 -8.46e-04 4.43e-03 1.10e-03 -2.01e-03 6.09e-03 2.66e-03
## 2645 -2.13e-03 -2.21e-03 -1.97e-03 -2.66e-03 6.50e-03 7.18e-03 2.59e-03
## 2646 -9.36e-02 -2.55e-01 3.41e-02 -2.13e-02 4.46e-02 -7.88e-02 -4.05e-03
## 2647 9.51e-03 1.87e-02 -1.48e-02 -1.97e-02 -3.54e-03 -1.36e-02 -5.35e-03
## 2648 -1.80e-03 -3.36e-04 -2.22e-03 -5.87e-03 -2.43e-03 6.64e-03 5.04e-03
## 2649 -2.90e-04 3.92e-05 -2.23e-04 1.95e-04 4.11e-05 -1.29e-05 5.49e-05
## 2650 -2.24e-03 2.47e-03 2.44e-03 1.70e-03 -3.35e-03 -6.91e-03 -6.70e-03
       1.62e-03 -6.36e-04 -1.85e-03 -7.43e-03 -5.13e-03 -2.46e-03 -1.87e-03
       1.29e-02 -4.80e-03 9.06e-03 -1.57e-02 -1.27e-02 4.32e-02 -3.78e-03
## 2652
## 2653 -4.06e-03 1.62e-03 2.49e-03 -2.03e-03 -6.45e-04 -1.64e-03 -7.63e-04
## 2654 -4.26e-04 1.35e-03 -6.96e-04 3.05e-04 5.82e-04 1.20e-04 -6.70e-05
## 2655 -3.99e-03 -6.84e-02 7.20e-03 -1.17e-02 4.04e-02 2.27e-03 -8.19e-03
       3.81e-03 7.36e-03 -1.43e-02 3.12e-03 8.36e-03 6.63e-04 -4.36e-03
        6.01e-02 2.11e-02 -2.04e-02 -3.16e-03 -4.65e-02 1.83e-03 -1.72e-02
## 2657
## 2658 -8.52e-04 -8.50e-03 1.18e-02 -1.10e-02 -2.55e-02 6.19e-04 6.12e-03
## 2659 3.57e-02 -8.44e-02 -1.52e-01 -9.37e-02 1.64e-01 1.81e-01 3.07e-03
## 2660 -4.30e-04 -3.82e-04 1.90e-03 3.83e-04 -1.08e-03 -9.29e-04 -2.70e-04
```

```
## 2661 3.67e-03 -2.42e-03 -1.30e-02 3.27e-03 -1.31e-02 -1.22e-02 -2.08e-02
## 2662 7.91e-03 2.66e-03 -1.31e-02 -1.59e-02 1.11e-02 4.04e-03 7.28e-03
       1.08e-02 6.11e-03 -1.59e-03 3.17e-04 -1.20e-02 -5.95e-03 -3.46e-03
## 2664 -5.47e-03 -2.86e-03 1.77e-02 6.01e-03 -5.31e-03 -2.00e-03 -4.59e-03
## 2665 -3.52e-03 2.84e-03 -1.29e-02 7.33e-03 -1.83e-02 -1.90e-02 -1.08e-02
       9.76e-04 -2.99e-04 -4.49e-03 -6.70e-05 1.04e-03 5.86e-03 1.01e-03
        1.99e-03 3.59e-03 -8.54e-03 -5.95e-04 6.84e-03 5.17e-03 1.73e-03
       3.06e-02 -6.25e-04 2.01e-03 -1.00e-02 1.74e-02 2.93e-02 1.94e-02
## 2668
## 2669 -1.42e-02 -1.80e-02 3.74e-02 -6.49e-03 -7.70e-02 6.60e-03 1.08e-02
## 2670 -3.65e-03 1.68e-02 -1.60e-02 -2.70e-02 1.81e-02 -1.67e-02 1.05e-03
## 2671 -1.32e-03 -5.25e-03 1.86e-02 -6.54e-03 -5.71e-03 -1.06e-03 -1.72e-03
## 2672 3.12e-03 -8.83e-04 -7.55e-03 1.20e-04 5.84e-03 5.24e-03 8.15e-04
## 2673 -2.46e-02 3.67e-02 2.46e-02 -1.77e-02 -4.97e-05 -3.00e-02 -3.50e-03
## 2674 1.91e-02 -6.30e-02 -1.27e-01 -1.83e-02 2.14e-01 1.18e-01 -1.11e-02
## 2675 -1.84e-03 1.72e-03 2.43e-04 1.11e-03 2.02e-03 -3.07e-03 -2.06e-03
## 2676 -2.09e-04 9.90e-05 3.71e-04 7.41e-04 -2.55e-04 2.17e-04 1.89e-04
## 2677 -1.09e-02 5.35e-03 -1.83e-03 2.91e-03 1.20e-02 -3.16e-03 -9.39e-03
## 2678 4.01e-05 5.96e-04 7.54e-04 -7.60e-04 1.10e-03 2.09e-04 -3.58e-04
## 2679 -1.38e-03 1.92e-03 1.47e-03 1.98e-03 -1.78e-03 -1.02e-03 -1.34e-04
## 2680 4.89e-03 2.50e-02 -9.80e-03 1.41e-03 -1.07e-02 4.31e-03 -4.60e-03
## 2681 -1.75e-02 3.45e-04 1.08e-02 5.50e-03 -5.89e-04 1.12e-02 4.01e-03
## 2682 -6.01e-02 1.91e-02 2.61e-02 -6.42e-02 7.45e-02 -2.16e-02 1.04e-03
## 2683 -1.22e-04 -4.32e-05 1.42e-04 8.70e-05 -1.40e-05 -1.05e-04 -2.31e-05
## 2684 4.81e-03 8.35e-03 -9.30e-02 4.98e-02 6.52e-02 -4.44e-02 -4.45e-02
## 2685 -5.19e-04 -1.44e-04 5.89e-04 -3.78e-05 9.88e-05 1.04e-05 -5.66e-05
## 2686 -1.65e-02 -2.80e-02 5.83e-02 -1.91e-02 -2.12e-02 -7.54e-03 5.52e-03
        2.51e-03 -3.09e-03 1.25e-03 3.16e-03 -4.27e-03 1.02e-02 4.27e-03
## 2687
        1.43e-03 -4.61e-03 2.70e-05 -2.75e-03 8.90e-03 2.90e-02 1.07e-02
## 2688
       6.88e-03 -1.84e-02 -2.69e-03 1.36e-02 1.32e-02 -5.17e-02 -3.21e-02
## 2689
## 2690 -2.28e-03 2.14e-03 2.58e-03 1.21e-03 -1.52e-03 3.70e-03 1.03e-03
       2.19e-05 1.01e-03 1.06e-03 -4.11e-03 1.25e-03 9.80e-03 4.95e-03
## 2692 -3.24e-04 3.80e-06 3.02e-04 1.09e-04 1.31e-04 9.66e-05 5.13e-05
## 2693 -6.12e-03 1.29e-04 1.32e-02 -2.21e-03 -1.01e-03 6.20e-03 1.51e-03
                           2.84e-04 -3.66e-03 -5.45e-04 -1.60e-02 -2.90e-03
## 2694
       3.28e-03 2.78e-03
                 1.54e-02 3.59e-02 9.74e-03 -7.08e-02 1.07e-02 9.98e-03
## 2695
        2.24e-03
       2.12e-02 2.05e-03 -4.71e-03 -9.30e-03 -3.15e-02 9.64e-02 3.16e-02
## 2696
       1.31e-03 -4.95e-03 3.78e-03 -1.58e-03 -6.65e-03 -1.57e-02 -3.86e-03
## 2698 -1.28e-04 -8.59e-05 2.34e-04 1.24e-04 -2.37e-04 -3.81e-05 1.02e-04
       2.44e-02 -1.54e-02 -4.82e-02 -1.15e-02 3.22e-02 2.39e-02 1.26e-03
## 2700 -1.92e-03 1.05e-02 8.01e-03 -7.38e-03 -1.16e-02 1.61e-02 1.02e-02
## 2701 -1.44e-03 1.08e-03 -6.60e-04 2.41e-03 8.04e-04 2.09e-03 1.30e-03
## 2702 3.39e-03 -1.60e-03 -4.91e-03 -5.72e-03 -2.60e-03 4.46e-03 2.39e-03
## 2703
        7.59e-03 4.60e-03 -6.11e-03 -9.28e-03 1.11e-03 -1.08e-02 -6.71e-03
## 2704 -4.36e-03 -2.08e-03 5.71e-04 -2.89e-03 3.60e-03 -1.27e-03 -6.50e-04
## 2705 1.15e-03 -7.83e-04 1.71e-03 8.96e-04 1.68e-05 5.88e-03 2.42e-03
## 2706 1.58e-02 -6.78e-03 1.05e-02 1.83e-02 1.71e-03 -2.94e-02 -8.16e-03
## 2707 -2.58e-03 -5.89e-04 1.77e-03 1.72e-03 4.03e-03 -2.79e-03 -1.68e-03
## 2708 -1.48e-02 -1.15e-03 1.83e-02 1.40e-02 -4.04e-03 -1.84e-02 -7.07e-03
## 2709 -1.18e-04 -8.30e-05 -1.73e-04 5.32e-04 1.78e-04 5.41e-04 3.97e-04
## 2710 -3.68e-02 2.03e-02 4.52e-02 1.67e-02 1.97e-02 1.84e-02 6.92e-03
## 2711 -1.09e-02 -2.27e-03 -1.26e-02 -2.28e-03 5.50e-02 -1.29e-02 -7.85e-03
## 2712 1.62e-03 -1.72e-03 3.71e-03 -2.03e-03 -1.36e-02 1.42e-02 6.87e-03
## 2713 -8.39e-03 1.90e-03 1.38e-02 9.86e-03 7.24e-03 1.01e-02 3.05e-03
## 2714 2.19e-01 -3.84e-01 2.35e-02 1.87e-01 -3.08e-01 6.69e-02 1.54e+00
```

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## 2715 3.18e-03 3.64e-04 -2.97e-03 -1.99e-03 -2.55e-04 -2.84e-04 3.64e-03
## 2716 4.78e-02 -7.82e-02 -4.29e-02 -6.22e-02 6.12e-02 -1.25e-01 -4.06e-02
## 2717 -1.58e-03 1.57e-04 1.37e-03 1.68e-04 3.70e-03 -6.94e-04 -1.38e-03
## 2718 1.01e-01 -6.86e-03 -8.06e-02 -2.58e-02 9.56e-03 -1.15e-01 -3.37e-02
        2.82e-02 -9.46e-03 -3.05e-02 -2.94e-02 1.25e-02 -1.59e-04 -5.44e-03
## 2720 -1.52e-01 -1.42e-02 1.09e-01 -2.89e-02 6.40e-02 -1.92e-04 -4.20e-02
## 2721 2.18e-02 -1.24e-02 -2.37e-02 -9.48e-03 -4.14e-03 -5.28e-03 1.87e-02
## 2722 -2.40e-02 -2.32e-03 2.45e-02 3.62e-03 -9.31e-03 -3.91e-03 -4.35e-04
## 2723 3.11e-02 1.37e-02 -3.34e-02 -7.61e-03 -3.24e-03 4.96e-04 4.47e-02
## 2724 8.85e-02 2.07e-02 -5.13e-02 -9.32e-03 -2.04e-02 -2.57e-05 2.40e-01
## 2725 -5.20e-04 -2.22e-04 7.91e-04 6.25e-04 -4.79e-04 -7.19e-05 -2.76e-07
       8.76e-02 4.15e-02 -6.54e-02 -7.00e-02 4.24e-02 -1.53e-01 -4.54e-02
## 2726
## 2727
        1.82e-01 6.39e-02 -2.07e-01 -1.66e-02 -1.52e-02 -1.34e-01 2.66e-02
       3.34e-03 2.97e-03 -4.43e-03 1.28e-03 -2.58e-03 -3.74e-03 -1.50e-03
## 2728
       9.78e-03 -5.64e-03 -1.07e-02 -7.88e-03 1.29e-02 -1.18e-02 -5.07e-03
## 2730 3.36e-02 -3.21e-02 -2.66e-02 -7.41e-03 -1.15e-02 -1.02e-02 1.60e-02
## 2731 2.69e-02 -1.70e-02 -2.33e-02 -1.13e-02 1.52e-02 -4.10e-03 1.34e-03
## 2732 7.53e-02 -1.21e-03 -7.25e-02 -1.29e-02 3.51e-02 -3.82e-03 5.12e-03
## 2733 -4.17e-02 -1.12e-02 3.02e-02 -3.60e-04 -1.48e-02 2.41e-02 7.59e-03
## 2734 -4.54e-02 1.09e-01 1.77e-02 2.13e-02 -4.52e-02 7.53e-02 3.19e-02
## 2735 2.98e-04 6.92e-04 -2.87e-04 2.15e-05 -1.56e-04 -8.16e-05 3.98e-05
## 2736 -4.62e-02 5.82e-02 -7.22e-03 2.53e-02 2.75e-03 2.23e-02 2.04e-02
## 2737 7.60e-03 1.27e-02 -8.95e-03 -9.31e-03 -6.44e-03 5.36e-04 -1.15e-03
## 2738 -7.59e-04 -1.48e-03 2.71e-04 -1.33e-03 2.49e-03 2.15e-04 -6.97e-04
## 2739 -2.03e-02 -4.89e-03 2.11e-02 1.24e-02 4.98e-04 -3.67e-03 1.13e-03
## 2740 5.50e-03 -6.19e-03 -8.17e-03 -7.47e-03 6.30e-03 4.43e-03 -2.58e-03
## 2741
       3.09e-02 6.30e-02 1.73e-03 -1.02e-01 -1.90e-02 1.25e-02 1.88e-03
## 2742 -6.02e-03 1.12e-02 2.08e-04 8.58e-03 -7.92e-04 -9.67e-03 -8.52e-03
## 2743 -5.23e-03 -6.87e-04 2.28e-03 9.80e-03 9.49e-03 5.47e-03 3.93e-03
## 2744 3.31e-02 7.93e-02 -2.85e-02 1.13e-02 -8.51e-02 3.26e-02 1.82e-02
## 2745 -1.52e-04 2.17e-03 -5.00e-05 5.40e-05 -1.36e-03 -1.28e-03 1.08e-06
## 2746 1.76e-02 4.66e-02 -8.35e-03 1.36e-02 -2.54e-02 -1.74e-03 -9.56e-05
## 2747
       8.90e-03 1.75e-02 -1.26e-02 9.81e-04 -9.98e-03 -6.28e-03 4.95e-03
## 2748 3.50e-04 5.85e-03 8.57e-04 -1.16e-02 -6.42e-03 -1.41e-03 -9.01e-05
        3.20e-02 2.98e-02 -3.10e-02 7.14e-03 -4.33e-02 -7.85e-03 1.30e-02
## 2750 -1.95e-03 -7.33e-04 -3.61e-04 -1.72e-03 -7.95e-03 5.18e-03 4.82e-03
## 2751 4.49e-03 -1.15e-02 -1.21e-02 -2.80e-03 -3.47e-03 -2.99e-02 -1.58e-02
## 2752 -4.45e-03 -3.67e-03 1.73e-03 -4.13e-03 -1.75e-04 4.58e-04 2.75e-04
       1.68e-04 2.74e-03 -2.63e-03 -3.00e-05 -6.72e-04 7.29e-03 2.95e-03
## 2754 -4.90e-04 7.93e-03 -8.65e-03 2.38e-03 1.86e-02 -2.32e-02 -1.65e-02
## 2755 2.77e-04 7.58e-03 -3.44e-03 -4.35e-04 -4.00e-03 6.05e-03 2.20e-03
## 2756 -1.21e-03 4.40e-03 2.93e-03 3.91e-03 2.42e-03 -5.25e-03 -4.08e-03
## 2757
        7.11e-03 9.10e-03 -2.51e-02 -1.22e-02 1.06e-02 -5.93e-02 -2.82e-02
## 2758 -9.27e-04 1.24e-03 1.20e-03 1.16e-03 -5.02e-04 6.12e-04 5.04e-04
## 2759 6.10e-02 2.08e-02 -5.12e-02 -6.50e-02 -2.29e-02 7.55e-02 1.68e-02
## 2760 -3.47e-04 5.25e-03 3.17e-04 -1.80e-03 -1.86e-04 2.11e-02 5.90e-03
## 2761 -7.87e-03 5.47e-03 4.88e-03 1.70e-03 5.88e-03 -2.25e-02 -8.77e-03
## 2762 -6.83e-03 -6.59e-03 4.79e-03 7.91e-03 4.19e-03 -1.50e-02 -1.04e-02
## 2763 2.78e-03 -6.84e-03 -7.89e-04 -8.76e-03 -1.13e-02 -2.77e-03 7.69e-04
## 2764 -3.25e-03 -2.67e-04 -2.59e-03 -4.61e-03 4.63e-03 2.06e-02 6.10e-03
## 2765 -1.15e-03 -2.84e-03 -9.08e-03 6.55e-03 -6.16e-03 -6.82e-03 1.05e-03
## 2766 1.42e-02 -4.02e-03 -1.18e-02 -8.02e-03 1.48e-03 -1.75e-02 -8.94e-03
## 2767 4.90e-04 3.73e-03 -2.31e-03 -3.33e-03 1.06e-03 6.78e-03 5.60e-03
## 2768 6.03e-04 2.80e-04 -1.69e-05 -1.29e-04 2.15e-04 -8.08e-04 1.01e-04
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1.14e-03 -7.55e-04 -3.91e-03 9.69e-04 -3.05e-03 1.27e-02 4.94e-03
## 2770 5.32e-03 -1.78e-03 -7.31e-03 1.37e-02 1.55e-02 -1.22e-02 -1.25e-02
       1.70e-02 -1.65e-02 -6.24e-03 1.30e-02 -2.03e-02 -7.51e-02 -2.74e-02
## 2772 6.64e-04 -1.73e-03 -2.40e-03 -1.02e-03 7.78e-03 -1.21e-02 -5.13e-03
## 2773 -3.62e-04 -3.20e-03 1.61e-03 5.83e-03 1.67e-02 2.20e-03 4.94e-03
## 2774 5.50e-03 3.98e-03 -7.02e-03 6.84e-03 1.16e-02 -7.56e-03 -2.05e-02
## 2775 -8.67e-03 4.20e-02 -2.01e-02 5.85e-02 7.29e-03 7.27e-02 2.33e-02
## 2776 2.95e-02 2.34e-02 -3.03e-02 7.69e-03 3.68e-02 8.94e-03 2.59e-04
        1.01e-02 -8.10e-03 -5.60e-04 -1.83e-02 -6.58e-03 9.31e-03 -4.00e-04
## 2778 -7.17e-04 1.19e-03 1.59e-04 9.04e-04 1.21e-03 -3.30e-04 6.52e-05
## 2779 -2.52e-04 1.13e-04 7.91e-04 -2.31e-04 -1.68e-03 -9.02e-04 -3.99e-04
## 2780 3.02e-03 1.62e-03 -3.71e-04 -5.89e-03 -1.02e-02 4.33e-03 2.29e-03
## 2781 -5.32e-04 -6.53e-03 -1.74e-02 1.82e-03 2.50e-02 1.65e-02 2.62e-03
## 2782 2.23e-02 1.46e-02 -2.10e-02 1.09e-03 4.03e-02 -2.45e-03 -4.51e-03
       4.44e-04 -4.23e-03 4.31e-03 -5.83e-03 -1.49e-03 4.76e-03 4.32e-04
       6.06e-03 -3.45e-03 -5.07e-03 -5.69e-03 -3.43e-03 3.12e-03 -3.21e-03
       3.19e-02 5.29e-02 -1.46e-03 4.03e-02 -1.18e-01 2.18e-02 1.19e-02
## 2786 -1.87e-03 -7.02e-03 -1.48e-04 9.31e-03 -8.01e-04 -4.41e-03 -4.62e-04
## 2787 -1.34e-02 -3.22e-03 1.02e-02 2.88e-02 2.05e-02 -1.29e-02 1.52e-02
       2.03e-02 -1.26e-02 -2.22e-02 -2.99e-02 5.41e-02 6.39e-03 -7.86e-03
       3.95e-02 5.73e-02 -5.30e-03 1.54e-02 3.06e-02 2.54e-04 8.98e-03
## 2790 -4.57e-02 -2.45e-02 5.77e-02 2.14e-02 -4.64e-02 1.89e-02 1.67e-02
## 2791 -1.94e-03 -4.54e-03 -1.37e-03 -5.28e-03 6.08e-03 3.57e-03 1.08e-03
## 2792 1.04e-02 -1.42e-03 -5.88e-03 -6.10e-03 1.08e-02 5.43e-03 3.81e-04
## 2793 2.00e-03 -4.11e-03 -2.62e-03 -7.52e-03 5.32e-03 1.39e-03 -8.46e-04
## 2794
       1.35e-02 1.28e-02 -1.51e-02 1.13e-02 4.81e-02 -5.35e-03 5.07e-04
## 2795
        1.86e-02 1.51e-02 8.73e-03 1.61e-02 1.16e-02 -5.43e-03 1.52e-04
## 2796
        7.36e-03 -2.70e-02 -2.67e-02 -2.64e-02 4.64e-02 5.99e-03 -5.42e-03
       2.13e-02 -2.55e-02 -1.61e-02 -7.71e-03 2.32e-02 2.39e-02 6.22e-03
## 2797
## 2798 2.37e-02 1.51e-02 -1.17e-02 2.74e-02 1.45e-02 6.22e-03 3.27e-03
## 2799 -4.74e-03 2.32e-02 1.41e-03 -1.22e-02 1.44e-02 1.84e-03 3.21e-03
## 2800
       1.42e-02 -1.95e-02 -1.00e-02 1.30e-02 2.11e-02 2.49e-02
                                                                  1.10e-02
## 2801
        1.58e-03 -1.47e-02 6.86e-03 9.24e-03 2.25e-02 1.17e-02 1.09e-02
       3.64e-02 1.82e-02 -3.09e-02 -1.39e-02 3.89e-02 9.67e-03 8.83e-03
## 2802
        1.67e-02 9.84e-02 -3.12e-02 4.17e-02 -4.82e-02 4.50e-02 8.97e-03
       2.60e-02 8.01e-04 -2.53e-02 -4.41e-03 3.20e-02 3.95e-03 -2.00e-03
       1.81e-02 -5.62e-02 -6.48e-03 -2.48e-02 3.54e-02 1.43e-02 5.34e-03
       2.97e-04 -1.35e-04 -2.05e-04 2.08e-04 -5.29e-05 -1.80e-04 -3.67e-04
       8.16e-03 -5.15e-03 -2.56e-03 3.33e-04 -4.58e-03 2.02e-03 -8.66e-04
## 2808 -9.95e-03 2.06e-02 2.13e-02 3.79e-02 7.61e-03 1.44e-02 2.04e-02
## 2809 -2.20e-02 -3.10e-02 -6.53e-02 2.23e-02 9.49e-02 7.95e-02 3.67e-04
## 2810 -8.61e-03 -2.09e-03 5.39e-03 7.01e-04 -4.00e-02 -1.59e-02 -2.48e-02
## 2811 2.30e-02 1.49e-01 -3.62e-02 -6.62e-02 2.03e-03 -8.68e-03 -9.30e-03
## 2812 1.27e-02 -1.42e-02 5.07e-05 -7.27e-03 -5.17e-02 -1.62e-02 -1.89e-02
## 2813 -5.49e-03 3.63e-03 2.01e-03 8.30e-03 7.55e-03 3.00e-03 3.08e-03
## 2814 5.87e-04 8.60e-03 8.52e-03 -1.35e-02 -1.70e-02 -2.52e-02 -4.83e-03
## 2815 -7.88e-03 -1.01e-02 3.83e-03 -3.36e-03 -8.92e-03 6.79e-04 -5.87e-03
## 2816 3.44e-03 3.42e-03 -4.31e-03 -5.94e-03 -3.11e-03 2.18e-03 -1.12e-03
## 2817
       4.60e-03 -8.04e-03 -3.23e-03 2.09e-03 -6.03e-04 -7.15e-03 -3.15e-03
## 2818 -1.18e-02 1.87e-03 5.52e-03 7.36e-03 7.92e-03 3.61e-04 3.83e-03
## 2819 -1.74e-02 -7.64e-03 3.10e-02 7.47e-02 -3.50e-02 -1.23e-02 2.36e-04
## 2820 1.77e-04 3.32e-03 -3.74e-03 -1.76e-02 1.35e-02 6.21e-03 -1.11e-03
## 2821 7.20e-03 -1.19e-02 1.22e-03 6.51e-04 -6.85e-03 -1.27e-02 -4.73e-03
## 2822 3.90e-02 -4.81e-02 -5.11e-02 -5.53e-02 4.13e-02 2.15e-02 1.20e-02
```

```
## 2823 -1.46e-03 6.95e-03 5.97e-04 2.11e-03 9.90e-03 -1.49e-03 1.41e-03
## 2824 -4.97e-03 -5.22e-02 3.13e-02 4.17e-02 5.77e-02 9.06e-03 1.21e-02
       3.92e-02 -1.11e-02 -3.33e-02 1.77e-02 -2.29e-02 -1.26e-02 -2.40e-02
## 2826
        1.34e-03 -4.23e-03 2.14e-03 -6.30e-03 6.22e-03 -3.31e-03 -1.53e-03
        3.71e-03 9.78e-03 -1.83e-02 -6.65e-03 3.28e-02 4.82e-03 -2.23e-03
        1.35e-03 7.06e-04 -1.55e-03 -2.92e-03 4.79e-03 3.38e-03 2.89e-03
## 2828
        3.06e-04 -1.18e-02 1.12e-02 6.34e-03 7.27e-03 1.18e-03 1.08e-03
       3.98e-04 1.23e-02 -4.92e-03 -1.35e-02 7.37e-03 1.83e-03 -6.07e-03
## 2830
## 2831 -1.41e-03 2.43e-02 -4.87e-03 9.60e-03 2.36e-02 -4.94e-03 4.85e-03
## 2832 -1.52e-04 2.80e-03 -1.20e-03 -1.84e-04 3.31e-04 3.85e-03 1.20e-03
## 2833 -3.68e-04 1.88e-04 4.25e-04 -2.62e-04 -1.16e-04 1.42e-05 -5.40e-05
## 2834 -1.93e-03 2.27e-02 -2.41e-02 8.40e-04 2.96e-02 2.91e-02 1.02e-02
## 2835
       6.17e-02 -1.34e-02 -6.42e-02 -4.84e-03 1.84e-02 -1.58e-02 -2.86e-02
       8.98e-03 -1.05e-02 -2.29e-03 7.08e-04 -4.09e-03 -3.54e-03 -1.12e-03
## 2836
        2.67e-05 -3.25e-05 1.68e-04 5.42e-04 -1.55e-03 -1.02e-03 -9.25e-05
## 2838 -2.05e-03 7.31e-03 -3.34e-03 -4.59e-03 2.18e-03 1.55e-02 5.43e-03
## 2839 -9.49e-03 -7.08e-04 -8.19e-03 -8.74e-03 2.71e-02 1.84e-02 3.08e-03
## 2840 -1.49e-02 2.27e-03 1.51e-02 7.64e-03 1.78e-02 4.50e-03 -4.88e-03
## 2841 2.08e-03 -5.52e-03 4.46e-03 2.49e-03 -3.90e-03 1.03e-02 3.44e-03
## 2842 -6.58e-03 7.05e-02 -1.96e-02 -6.25e-03 2.06e-02 9.29e-03 -1.36e-02
## 2843 1.92e-03 -6.97e-03 1.33e-03 -1.89e-03 1.70e-02 3.91e-03 -4.39e-03
## 2844 -8.61e-03 1.46e-02 8.64e-03 -5.78e-04 -6.26e-03 1.20e-02 4.14e-03
## 2845 -2.01e-02 5.01e-03 2.88e-02 2.35e-02 -2.16e-02 7.87e-03 1.58e-02
## 2846 -7.19e-03 1.51e-03 4.68e-03 -1.87e-03 5.73e-04 1.35e-02 6.18e-03
## 2847 -1.22e-03 1.61e-03 -3.16e-04 -2.92e-03 2.00e-03 3.87e-03 9.41e-04
       7.53e-04 -4.48e-04 3.91e-04 -4.64e-04 -1.46e-03 3.75e-04 -8.10e-04
        5.25e-03 -6.57e-03 -1.98e-03 -1.16e-02 -3.86e-03 -4.28e-03 -3.86e-03
## 2849
       5.41e-04 -1.49e-03 4.53e-04 1.91e-03 2.23e-04 -1.03e-03 7.30e-04
       1.17e-02 -1.13e-02 -5.23e-03 8.98e-03 -2.33e-02 -1.43e-02 -2.95e-03
## 2851
## 2852 -7.02e-04 -2.98e-04 -1.69e-03 -1.86e-03 1.80e-03 1.95e-03 -1.32e-04
## 2853 -1.03e-02 9.60e-03 7.78e-03 -2.84e-03 8.59e-03 2.01e-02 3.34e-03
## 2854 -2.12e-03 1.75e-03 1.24e-03 -4.75e-04 6.25e-04 1.60e-03 -7.14e-04
## 2855 -1.27e-02 1.34e-02 1.26e-02 1.72e-02 -2.45e-03 1.48e-02 3.99e-03
## 2856 -3.34e-03 1.39e-03 -2.85e-04 -1.87e-03 4.18e-03 5.67e-03 -4.07e-04
## 2857 -2.94e-03 1.12e-02 -1.08e-02 -9.08e-03 9.92e-03 2.29e-03 -6.35e-03
## 2858 -2.30e-02 6.64e-02 2.74e-02 1.81e-02 -3.80e-02 -3.35e-03 -7.47e-03
## 2859 4.29e-03 -5.56e-04 5.40e-04 -2.37e-03 -2.21e-03 -4.93e-04 1.33e-03
## 2860 -1.02e-02 -1.01e-02 8.79e-04 3.56e-03 3.21e-02 1.33e-02 2.37e-03
## 2861 -7.57e-03 -1.45e-02 -2.21e-03 2.05e-02 7.67e-03 1.59e-03 -1.69e-03
## 2862 -7.97e-03 5.64e-03 -4.12e-04 -3.63e-04 3.76e-05 -8.50e-04 -4.25e-03
       1.91e-03 -5.07e-04 -9.00e-04 -3.66e-04 -1.56e-04 -5.05e-04 -1.66e-05
        1.56e-02 9.60e-03 -3.34e-02 3.79e-02 7.03e-03 -3.35e-02 -1.65e-02
## 2864
## 2865
        1.19e-04 -2.50e-04 -2.58e-05 -1.72e-04 8.28e-06 1.16e-04 1.36e-04
       1.64e-03 -1.81e-03 -1.57e-03 -1.63e-04 -3.58e-04 -6.02e-04 -1.30e-04
## 2866
## 2867 -9.23e-04 -4.10e-03 -3.40e-03 1.57e-03 1.01e-02 1.91e-03 -4.01e-03
## 2868 -3.24e-03 -2.93e-03 3.49e-04 3.50e-03 5.19e-04 -8.91e-04 -1.08e-03
## 2869
       1.17e-02 -5.70e-03 -2.43e-03 -1.83e-03 -1.35e-02 1.04e-03 4.04e-03
## 2870 -3.10e-03 1.79e-03 -9.87e-04 1.80e-04 1.91e-03 -2.22e-03 -8.46e-04
## 2871
       1.18e-03 2.50e-03 -5.54e-03 -4.96e-03 7.61e-03 4.50e-04 -4.44e-03
## 2872 -1.79e-03 6.94e-04 -9.99e-04 -2.03e-03 1.21e-03 -1.96e-03 -2.88e-04
       1.05e-03 2.08e-04 -1.75e-03 -6.75e-04 8.30e-04 -1.70e-03 4.18e-04
       1.68e-03 -1.30e-03 2.01e-03 2.02e-03 -3.22e-03 1.13e-03 -6.72e-03
## 2875 2.24e-04 -4.66e-04 3.80e-04 1.55e-04 -6.62e-04 -4.78e-04 1.38e-04
## 2876 1.68e-02 1.85e-03 -1.21e-02 1.72e-02 1.39e-02 8.91e-03 4.56e-03
```

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## 2877 1.81e-03 5.45e-03 -1.44e-02 -1.66e-03 9.59e-03 2.60e-03 -7.16e-03
## 2878 1.13e-02 -1.25e-02 9.51e-03 1.29e-02 1.07e-03 -8.02e-03 3.58e-03
## 2879 -2.11e-03 4.09e-03 -3.47e-03 -3.10e-03 2.55e-03 -3.70e-03 -5.09e-03
## 2880 4.38e-03 2.70e-03 -1.02e-02 7.86e-03 -2.03e-03 -7.70e-03 -5.13e-04
## 2881 -6.72e-03 4.97e-03 -1.36e-02 -7.06e-03 1.76e-02 -3.06e-03 1.49e-04
## 2882 -4.78e-04 -4.18e-05 1.75e-03 -2.48e-03 -1.10e-03 4.90e-04 1.84e-03
       1.13e-03 -3.39e-03 1.14e-03 2.03e-05 -2.22e-03 -1.75e-04 9.27e-04
## 2884 -4.81e-04 4.90e-04 -5.17e-04 -2.14e-05 1.42e-03 6.47e-04 -3.74e-04
## 2885
        1.01e-03 2.20e-03 -5.90e-03 -3.27e-03 7.75e-03 2.55e-03 -4.80e-03
## 2886 -9.90e-03 1.71e-02 4.49e-03 -1.70e-03 6.77e-03 1.53e-02 2.77e-03
## 2887
        1.35e-02 -5.41e-03 4.53e-03 -5.43e-03 -4.50e-03 -2.70e-03 4.68e-03
## 2888 -4.39e-03 3.80e-03 -1.45e-03 -3.26e-04 4.14e-03 5.19e-03 4.34e-04
## 2889
       1.18e-02 -7.79e-03 -1.79e-02 -7.00e-03 1.15e-03 -1.76e-02 -5.37e-03
## 2890 -1.65e-02 4.62e-03 -5.51e-03 -1.12e-02 2.56e-03 3.51e-03 -5.75e-03
## 2891 -9.63e-03 -7.74e-04 -1.50e-03 2.25e-03 4.75e-03 -2.31e-03 -5.07e-03
       6.50e-03 -6.10e-03 7.42e-03 1.43e-03 -6.13e-03 8.11e-03 6.21e-03
## 2893 -3.18e-02 6.99e-03 2.86e-02 -4.04e-03 -1.75e-02 -4.62e-03 -3.91e-03
## 2894 -8.12e-04 7.09e-04 -4.46e-04 -1.06e-03 1.63e-03 1.60e-03 -1.09e-03
## 2895 3.96e-04 4.39e-04 -6.53e-04 -1.30e-03 -6.18e-04 6.04e-04 -4.09e-04
## 2896 -5.57e-04 -1.58e-03 -1.37e-03 -6.01e-04 2.57e-03 8.15e-04 -1.60e-03
## 2897 -1.95e-03 4.37e-03 4.79e-04 -2.89e-03 1.38e-03 1.47e-04 3.04e-03
       6.01e-03 -7.09e-03 -2.30e-03 2.67e-03 -1.44e-03 -4.91e-03 4.01e-03
        1.16e-02 -1.02e-02 5.76e-03 -8.65e-04 -7.27e-03 6.73e-03 7.94e-03
## 2899
        4.22e-03 5.48e-05 -2.37e-03 3.79e-03 3.88e-03 -4.74e-03 -1.39e-03
## 2900
## 2901
       1.01e-02 6.19e-03 -6.66e-03 -2.48e-03 -3.05e-03 -1.67e-03 -1.70e-03
## 2902 9.22e-03 -1.66e-02 3.93e-02 5.18e-03 -4.89e-02 1.38e-03 1.07e-02
## 2903 -3.65e-03 5.17e-05 -3.06e-02 1.65e-02 4.75e-02 2.95e-03 -1.59e-02
## 2904
       1.31e-03 -1.39e-05 1.19e-04 6.69e-04 6.57e-05 1.57e-04 1.05e-03
       1.02e-03 -6.96e-03 -2.29e-04 1.52e-03 4.74e-03 -6.05e-03 5.92e-04
## 2905
## 2906 8.22e-04 -2.48e-04 -1.76e-04 9.62e-05 -3.02e-04 -1.04e-03 1.95e-05
## 2907 -1.21e-03 6.01e-04 1.33e-03 -5.54e-04 -4.44e-04 -3.05e-03 -1.58e-03
## 2908
       6.33e-03 -2.58e-03 -3.80e-03 -5.25e-04 -1.08e-02 -8.17e-03 -8.77e-04
## 2909
        4.21e-04 -1.00e-03 2.85e-04 4.26e-04 -2.57e-04 -4.51e-04 3.02e-04
## 2910 5.13e-02 2.13e-02 -2.78e-02 3.21e-02 -1.91e-02 3.22e-03 -1.07e-02
        4.88e-03 4.10e-03 9.58e-03 3.34e-03 -1.48e-02 -1.06e-02 2.22e-03
## 2912 6.33e-03 -1.64e-04 -1.03e-03 -1.30e-03 -1.71e-03 3.16e-04 1.77e-03
## 2913 1.02e-02 -7.36e-03 2.33e-03 -1.36e-02 -1.07e-02 -5.57e-04 2.96e-03
## 2914 -4.41e-03 -1.89e-02 -6.78e-03 5.40e-03 1.77e-02 2.81e-03 -5.09e-03
## 2915 -2.02e-03 9.77e-03 -8.38e-03 -6.31e-03 1.30e-03 1.77e-03 -3.96e-03
## 2916 -1.27e-02 1.60e-02 1.45e-02 4.40e-03 -4.78e-03 6.71e-03 -7.64e-04
## 2917 -2.11e-04 1.60e-04 2.53e-05 -1.39e-04 1.83e-04 1.76e-04 -1.68e-05
## 2918 -1.05e-02 9.97e-03 4.88e-03 6.03e-03 8.79e-03 3.57e-03 -1.58e-03
## 2919 -5.41e-04 -7.57e-04 -1.57e-03 5.89e-04 7.51e-03 2.74e-03 -2.54e-03
## 2920 4.08e-03 -1.48e-02 6.56e-03 -3.70e-03 -4.28e-05 -1.17e-05 7.58e-03
## 2921 -1.97e-03 1.55e-03 2.92e-03 1.40e-03 -1.85e-03 1.76e-04 -1.91e-04
## 2922 -2.92e-02 2.95e-02 2.06e-03 2.10e-02 3.40e-02 1.73e-02 -7.57e-03
## 2923 -3.25e-03 1.65e-03 -8.31e-03 -3.02e-04 8.38e-03 6.13e-03 -4.34e-03
## 2924 -8.71e-03 8.36e-03 -5.74e-03 -2.94e-03 7.76e-03 -1.02e-02 4.60e-03
## 2925 -1.15e-02 1.15e-02 9.38e-03 -9.01e-05 -1.67e-03 6.10e-03 -5.40e-04
## 2926 -4.53e-03 -1.36e-03 -1.73e-03 -2.25e-03 9.80e-03 3.28e-03 1.51e-03
## 2927 8.02e-04 -3.28e-04 1.71e-03 1.27e-03 -1.44e-03 7.06e-04 1.21e-03
## 2928 -3.21e-02 -6.22e-03 1.59e-02 4.52e-02 5.99e-03 -2.41e-02 -5.28e-03
## 2929 -5.35e-04 3.11e-04 4.22e-04 6.66e-04 -1.85e-04 -2.93e-04 -2.85e-04
## 2930 -4.73e-04 -1.43e-04 -6.50e-03 -1.30e-02 -4.92e-03 1.08e-02 1.90e-02
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## 2931 3.42e-04 -2.00e-04 -3.15e-04 -3.95e-04 -7.15e-05 3.47e-04 -2.67e-05
## 2932 -1.45e-03 -3.04e-03 4.46e-03 1.82e-03 -4.91e-03 -6.00e-03 -9.12e-04
## 2933 2.41e-04 -1.10e-02 -1.67e-02 -2.87e-02 -5.88e-03 -4.67e-03 4.12e-03
## 2934 7.72e-03 -4.15e-03 -6.92e-03 2.05e-02 -8.40e-04 3.01e-03 2.86e-05
## 2935 -2.19e-03 4.53e-03 7.83e-03 5.50e-03 -6.43e-03 -4.63e-03 4.92e-04
## 2936 -2.85e-03 -7.93e-03 -1.36e-02 -8.85e-03 1.42e-02 1.23e-02 -1.90e-03
       1.62e-02 1.84e-03 -2.11e-02 -1.15e-02 3.54e-03 7.05e-03 -4.46e-03
       4.24e-04 -5.75e-04 -4.68e-05 3.30e-04 -3.42e-04 -3.40e-04 7.16e-05
        2.83e-03 -1.91e-03 -1.51e-02 -1.86e-02 8.63e-03 1.30e-02 -7.40e-03
## 2940 -8.00e-04 -9.55e-05 8.44e-04 2.51e-04 -3.74e-04 5.96e-04 1.92e-04
       1.36e-03 3.42e-05 -7.46e-04 -2.04e-03 -4.06e-04 7.50e-04 8.02e-05
## 2942 -1.03e-02 -7.60e-03 -6.20e-03 -4.05e-03 2.15e-02 4.31e-03 -6.14e-03
## 2943
       4.02e-03 -4.41e-03 -6.42e-03 -9.80e-03 4.82e-04 1.05e-02 3.17e-03
## 2944 6.82e-03 1.18e-03 -1.05e-02 -6.75e-03 4.33e-03 5.84e-03 -1.38e-03
## 2945 -3.34e-04 -4.53e-04 -2.10e-03 1.81e-03 -1.40e-03 -3.23e-03 2.25e-04
## 2946 -3.59e-03 -6.00e-03 -8.24e-03 -4.71e-03 -7.79e-03 -7.03e-03 -1.20e-02
## 2947 -7.81e-03 -1.47e-03 7.89e-03 9.59e-03 -1.24e-03 -4.25e-03 6.35e-04
## 2948 2.03e-02 -1.30e-02 -3.94e-02 -2.51e-02 5.36e-02 5.52e-02 6.51e-03
       1.15e-03 4.43e-04 -2.07e-03 -9.97e-04 8.88e-04 8.27e-04 -6.00e-04
## 2949
## 2950 9.90e-05 -9.35e-04 -4.92e-05 9.53e-04 1.07e-03 -3.24e-05 9.75e-04
## 2951 -4.09e-03 1.46e-03 3.12e-03 9.04e-04 1.01e-03 -1.72e-03 1.78e-03
## 2952 2.36e-04 -3.83e-03 -5.64e-03 -2.51e-03 1.13e-02 -8.76e-03 3.26e-03
## 2953 -1.40e-04 -9.21e-03 1.72e-04 -2.94e-03 1.45e-02 -2.56e-03 1.63e-03
## 2954 1.18e-02 -7.85e-03 -3.20e-03 -1.21e-03 7.42e-03 1.86e-03 5.36e-03
## 2955 -5.98e-04 5.19e-04 1.80e-04 3.73e-04 -6.83e-04 -1.69e-04 -1.57e-04
## 2956 -1.98e-03 8.91e-04 8.88e-04 3.06e-04 -3.67e-04 9.57e-05 -1.41e-04
        1.43e-04 -8.70e-03 9.17e-03 6.26e-05 9.68e-04 5.91e-03 1.11e-02
## 2957
## 2958 -1.43e-03 -1.47e-03 1.19e-03 4.21e-03 -3.71e-04 -6.22e-04 -2.44e-03
## 2959 -1.93e-03 -1.50e-03 3.72e-03 -2.55e-03 4.38e-03 7.30e-04 -1.35e-03
## 2960 -2.22e-04 3.28e-04 -1.68e-05 1.52e-04 -6.10e-04 -2.58e-04 -2.43e-04
       2.66e-03 -3.00e-03 -5.47e-04 -1.66e-03 1.87e-03 1.26e-04 9.12e-04
## 2962 2.45e-05 1.21e-03 -8.11e-04 4.49e-04 -2.40e-03 4.74e-04 -1.04e-03
## 2963 -2.79e-03 2.31e-03 1.51e-03 -1.44e-03 -2.63e-03 1.23e-03 1.56e-03
## 2964 7.43e-04 -1.16e-03 -7.26e-04 -3.17e-04 5.60e-03 -9.28e-04 2.00e-03
## 2965 -4.60e-03 2.46e-02 9.67e-03 -4.49e-03 -1.19e-03 -2.66e-03 1.59e-02
       1.59e-02 -4.60e-02 -3.38e-03 -1.59e-02 2.23e-02 7.20e-03 8.18e-03
## 2967 4.62e-03 -7.27e-04 1.76e-03 3.66e-03 7.03e-03 2.51e-03 2.26e-03
## 2968 -2.95e-04 1.72e-03 -2.76e-04 3.65e-04 -7.37e-04 1.20e-04 -2.06e-04
## 2969 -2.38e-03 -1.12e-04 -1.55e-03 -3.05e-03 -4.27e-04 1.55e-03 -1.38e-03
## 2970 1.25e-04 -2.84e-03 6.80e-03 5.23e-03 -2.51e-03 4.15e-03 1.47e-02
## 2971 -3.75e-03 -2.54e-04 -6.12e-03 1.33e-02 1.27e-02 -9.44e-03 -1.18e-02
## 2972 7.14e-03 3.35e-03 -3.11e-03 -3.61e-03 1.79e-03 2.82e-03 5.12e-03
        1.39e-03 -3.46e-04 -1.22e-03 -1.54e-03 9.25e-04 -1.82e-04 1.03e-03
       6.53e-03 -1.25e-02 -3.37e-03 -2.63e-02 2.87e-02 1.26e-02 1.39e-02
## 2974
        1.14e-02 -9.19e-03 -5.48e-03 6.56e-04 -3.93e-03 -1.13e-02 -6.10e-04
        1.94e-03 2.18e-04 -2.72e-03 -2.08e-03 -2.82e-04 7.07e-04 -9.27e-04
## 2976
## 2977
        1.94e-02 -1.01e-02 -4.37e-03 -1.66e-05 7.99e-03 7.28e-04 -7.46e-03
## 2978 -7.27e-03 -8.31e-03 9.76e-03 6.25e-03 -4.48e-03 5.30e-03 -4.83e-04
## 2979 2.52e-04 -1.13e-02 4.73e-03 1.38e-02 1.22e-02 8.32e-03 9.02e-03
## 2980 -2.41e-03 -6.36e-03 -5.19e-03 -4.23e-03 6.13e-03 -1.16e-03 -5.73e-03
## 2981 -4.29e-03 1.58e-03 -2.99e-03 -4.78e-03 1.00e-02 7.54e-03 -3.63e-03
## 2982 -7.50e-03 1.73e-03 5.47e-03 -2.59e-03 -4.31e-03 -3.19e-03 -4.38e-03
## 2983 -1.62e-02 4.65e-03 4.44e-03 -2.18e-03 -3.87e-04 2.69e-04 1.86e-03
## 2984 -9.13e-03 1.43e-02 -2.16e-05 -7.00e-04 -1.04e-02 -9.91e-03 -7.88e-03
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6.26e-03 1.29e-02 -2.74e-03 6.21e-03 3.12e-02 -8.95e-04 5.80e-03
       9.01e-03 -4.90e-03 -4.05e-03 -1.09e-02 7.34e-03 -6.42e-03 2.83e-03
## 2986
       2.76e-02 2.12e-02 -3.07e-02 -4.84e-03 3.18e-04 1.68e-02 -7.24e-03
## 2988
        7.59e-02 -4.56e-03 -4.90e-02 -1.64e-02 -2.40e-02 -3.04e-02 -1.26e-04
        1.14e-03 -1.18e-03 1.65e-04 1.86e-03 1.14e-03 -5.95e-05 6.71e-04
## 2990 -2.34e-03 3.52e-03 1.09e-03 1.84e-03 -1.06e-02 -4.14e-03 -4.94e-03
        1.17e-03 1.19e-03 2.51e-03 9.93e-04 3.04e-03 5.76e-05 1.31e-03
       8.46e-03 -9.44e-03 -3.85e-03 2.80e-03 8.79e-03 -5.15e-03 -4.39e-03
## 2992
## 2993 -1.78e-03 1.79e-03 -9.63e-04 -1.70e-03 6.34e-03 5.69e-04 4.27e-03
## 2994
       2.43e-03 -1.76e-03 4.75e-03 3.00e-03 3.48e-03 2.97e-03 6.01e-03
## 2995
       3.81e-03 8.65e-03 9.23e-04 -2.30e-02 1.14e-02 -6.31e-03 8.35e-03
## 2996 -1.33e-03 2.14e-03 -1.57e-03 -1.42e-02 -3.46e-03 6.53e-03 8.29e-03
## 2997
        1.90e-03 1.89e-03 -2.31e-03 -2.27e-03 -1.31e-03 2.25e-03 -1.12e-03
## 2998
       2.24e-03 -8.36e-03 3.72e-04 1.97e-04 -5.79e-04 1.79e-03 -8.25e-04
       1.01e-04 2.66e-05 -2.12e-04 -7.59e-05 1.50e-04 -1.31e-05 -2.23e-05
## 2999
## 3000 -1.74e-03 3.49e-05 -4.83e-05 4.90e-03 -3.37e-03 -1.30e-03 -3.54e-03
       1.17e-03 3.25e-03 -2.61e-03 -3.48e-03 -2.07e-03 1.05e-03 1.48e-04
## 3001
## 3002 -4.67e-03 -4.92e-04 6.50e-03 -2.06e-02 1.68e-02 5.89e-03 1.04e-02
## 3003 5.96e-04 -9.56e-05 -5.48e-04 3.61e-03 2.75e-03 4.18e-03 4.19e-03
       5.94e-03 8.33e-03 -2.05e-02 2.50e-02 7.44e-03 -1.63e-02 -1.72e-02
## 3005
       9.75e-03 -7.28e-03 -3.05e-03 -1.84e-03 4.16e-03 6.16e-03 3.97e-03
## 3006 -4.19e-04 1.61e-03 2.16e-04 -1.50e-04 -1.90e-03 4.81e-04 -8.54e-05
## 3007 2.25e-03 -2.36e-03 -2.25e-03 -2.02e-03 -5.12e-04 3.26e-03 -1.15e-03
## 3008 -2.08e-03 2.26e-03 2.37e-03 2.44e-03 1.61e-05 -6.98e-04 -3.60e-04
## 3009 2.71e-03 -6.14e-03 -1.46e-03 8.47e-04 -1.16e-03 -4.23e-03 1.15e-03
## 3010 5.18e-04 1.46e-03 -2.74e-03 -1.89e-03 8.01e-04 -5.12e-04 -2.38e-03
## 3011 -3.34e-03 -8.77e-03 1.04e-02 6.07e-03 7.99e-03 -2.89e-03 4.09e-03
## 3012 1.09e-03 1.78e-02 -1.16e-02 -7.21e-04 2.19e-02 -1.27e-02 -5.15e-03
## 3013 -3.66e-03 -1.61e-03 3.29e-03 8.16e-03 -6.28e-03 -1.39e-02 3.41e-03
## 3014 -9.22e-04 -1.10e-03 -3.44e-04 1.48e-03 1.48e-03 -5.23e-04 -1.60e-03
## 3015 -2.77e-03 3.46e-03 -9.52e-04 -4.21e-03 4.41e-03 4.46e-03 6.02e-03
## 3016 2.25e-04 3.21e-04 -6.32e-05 -1.10e-03 -8.11e-04 7.99e-04 2.62e-04
## 3017
       8.85e-03 -7.82e-03 6.36e-03 -2.14e-02 1.20e-02 1.66e-03 1.33e-02
       3.56e-03 1.20e-03 3.91e-03 -3.55e-03 9.05e-04 -4.36e-03 3.56e-03
## 3018
        2.73e-04 -1.65e-03 1.08e-02 3.03e-03 -3.60e-03 1.10e-02 -2.99e-03
       4.06e-04 2.92e-04 1.35e-04 1.82e-04 -2.99e-04 -1.40e-05 -5.45e-04
## 3020
## 3021 5.84e-03 -6.78e-04 -1.13e-04 -4.48e-03 3.76e-04 4.04e-03 -3.83e-03
## 3022 -1.19e-02 6.48e-03 1.47e-02 2.47e-02 -2.97e-02 -1.34e-02 -2.74e-03
        4.66e-05 -3.76e-05 -1.25e-04 5.45e-05 7.62e-05 -1.85e-04 8.35e-05
## 3024 1.26e-03 -5.99e-04 -1.14e-02 7.52e-03 1.27e-02 -2.29e-03 1.61e-04
## 3025 -1.44e-03 5.28e-04 5.71e-03 2.88e-03 -8.04e-03 -2.65e-03 -7.76e-04
## 3026 -1.02e-04 -3.11e-04 -1.34e-03 -4.71e-03 2.63e-04 5.89e-06 -1.88e-03
## 3027 -8.93e-05 3.57e-05 6.74e-05 2.41e-04 -8.27e-04 8.83e-05 -3.93e-05
## 3028 -3.04e-03 3.71e-03 7.27e-03 1.49e-02 -1.30e-02 -6.70e-03 -1.14e-04
       1.88e-03 -2.97e-03 -3.97e-03 -1.54e-02 1.45e-02 3.66e-03 1.86e-03
       2.52e-04 -1.63e-03 -5.05e-03 -4.22e-03 2.85e-02 1.93e-03 2.15e-03
## 3030
## 3031 -4.93e-03 1.05e-03 6.89e-03 3.56e-03 -1.01e-02 -6.69e-03 -4.28e-03
## 3032
       4.89e-03 -8.25e-04 -4.19e-03 -3.77e-04 1.03e-03 6.07e-03 -1.70e-03
## 3033
       1.44e-03 5.06e-04 -2.81e-03 1.98e-03 -1.23e-03 3.87e-05 -1.45e-03
## 3034
        1.81e-04 9.00e-03 -1.50e-02 1.74e-03 -7.27e-03 8.25e-03 5.58e-03
        1.46e-03 -5.99e-04 -7.29e-04 -5.78e-03 4.59e-04 3.44e-03 -5.61e-04
## 3035
## 3036 3.56e-02 4.36e-03 -2.01e-02 7.54e-02 -4.43e-02 2.01e-02 -2.64e-03
## 3037 -2.67e-03 -1.23e-03 -3.29e-03 -2.09e-03 2.70e-03 9.56e-04 -2.59e-03
## 3038 -4.85e-03 -2.70e-03 -2.62e-03 3.01e-03 3.82e-03 1.91e-03 5.30e-03
```

```
## 3039 -1.17e-02 4.95e-03 -1.03e-02 2.09e-02 9.01e-03 -1.56e-02 -9.35e-03
## 3040 3.24e-02 3.01e-02 -1.45e-02 5.29e-02 -5.94e-02 -2.26e-02 -1.91e-02
## 3041 -3.96e-02 1.11e-03 3.78e-02 4.43e-02 -3.03e-02 -1.70e-04 1.18e-02
## 3042 -2.67e-02 5.50e-03 1.39e-02 2.58e-02 5.88e-03 -2.05e-02 9.59e-03
        8.48e-03 4.11e-03 -1.60e-03 -4.80e-04
                                               1.22e-02 3.07e-03 1.06e-02
       1.81e-02 -1.35e-02 -2.20e-02 2.28e-02 2.58e-02 -8.32e-03 -1.19e-02
## 3044
## 3045 -1.83e-02 -1.28e-02 1.46e-02 4.71e-02 5.54e-03 -1.94e-02 -7.69e-04
## 3046 -2.68e-03 -2.36e-04 1.06e-03 -2.08e-03 1.08e-03 -2.91e-04 -1.73e-03
## 3047 -9.67e-03 -1.16e-02 -1.10e-02 -9.61e-02 2.86e-02 -2.14e-02 -9.54e-04
##
        dfb.pct_t_ dfb.pct_m_ dfb.p__1 dfb.pct_w_ dfb.incm_
                                                                dffit cov.r
## 1
         1.66e-03
                    5.16e-04 -7.18e-03 -4.61e-03 3.38e-03 -2.48e-02 1.004
                    1.17e-03 1.57e-03
## 2
         -4.86e-04
                                        -1.54e-04 -4.54e-04 -3.80e-03 1.007
                   -2.51e-03 9.53e-03
## 3
         3.43e-03
                                         1.33e-02 6.10e-03 4.19e-02 1.002
## 4
        -6.37e-05
                   -5.24e-03 7.61e-03
                                         3.85e-03 6.48e-03 2.77e-02 1.004
## 5
                    2.77e-03 -8.72e-04
                                         1.22e-04 -1.08e-03 -1.74e-02 1.006
         2.84e-03
## 6
         -1.06e-02
                    4.72e-03 -8.16e-03
                                         1.43e-02 -6.87e-03 -5.36e-02 1.003
## 7
                                        -2.83e-03 -1.54e-02 -3.46e-02 1.006
         -2.11e-02
                   -7.55e-03 -4.78e-03
## 8
         2.95e-03
                   -6.43e-03 -5.62e-04
                                        -5.76e-03 9.05e-03 3.08e-02 1.006
## 9
                                        -4.62e-03 -8.64e-03 -1.82e-02 1.007
         -6.08e-04
                   -3.69e-03 -6.19e-03
## 10
         6.24e-04
                    1.47e-03 -4.53e-03
                                         1.67e-04 8.20e-04 -1.68e-02 1.006
## 11
        -2.11e-02
                    2.37e-02 2.80e-02
                                         1.10e-02 -1.02e-02 -1.19e-01 0.994
## 12
                   -1.81e-03 -6.43e-03
                                        -3.64e-03 -3.46e-03 -2.55e-02 1.004
         -1.70e-02
                                         4.48e-03 1.21e-03 4.03e-02 1.002
                   -1.31e-02 1.68e-02
## 13
         -4.77e-03
                    4.10e-04 -3.99e-03
                                         2.56e-03 2.99e-03 -2.35e-02 1.008
## 14
         2.84e-03
## 15
         4.49e-04
                    9.94e-04 5.95e-04
                                        -3.31e-04 -3.55e-04 -2.96e-03 1.005
## 16
         5.80e-04
                   -4.33e-03 2.82e-04
                                        -1.27e-03 -4.84e-03 -1.02e-02 1.005
                    2.26e-03 -2.23e-03
                                         8.90e-05 1.84e-03 -1.91e-02 1.005
## 17
         2.81e-03
## 18
         -2.72e-04
                   -2.71e-03 6.44e-03
                                         4.15e-03 -1.12e-02 -7.29e-02 1.000
## 19
        -4.64e-03
                    2.53e-03 2.11e-03
                                         2.21e-04 -4.89e-04 -8.85e-03 1.005
## 20
         -1.53e-03
                    3.22e-03 1.56e-02
                                         6.10e-03 -1.63e-03 -2.85e-02 1.004
## 21
         1.06e-02
                    8.71e-03 1.76e-02
                                        -4.63e-02 -3.28e-02 -1.31e-01 1.011
## 22
         -8.37e-03
                    1.17e-03 -3.90e-03
                                        -9.30e-04 -1.93e-03 -1.17e-02 1.009
## 23
         -2.22e-03
                    7.71e-03 -7.10e-03
                                        -1.24e-03 7.04e-03 1.62e-02 1.006
                                         1.27e-02 -1.36e-03 4.50e-02 1.000
## 24
         -4.34e-03
                   -1.24e-02 2.01e-02
## 25
         9.35e-04
                    1.51e-02 2.99e-02
                                         3.38e-02 3.60e-02 8.62e-02 0.996
## 26
                   -5.84e-04 3.07e-03
                                         1.86e-03 -4.24e-03 7.53e-03 1.011
        -2.82e-04
## 27
         1.43e-04
                   -4.70e-03 -3.68e-03
                                        -3.72e-04 1.29e-03 1.10e-02 1.005
## 28
         -3.69e-05
                   -1.34e-03 -4.18e-04
                                        -5.75e-05 -2.26e-03 3.11e-03 1.010
## 29
         3.30e-03
                    2.14e-02 -6.54e-02
                                        -3.97e-02 -6.94e-02 1.51e-01 1.007
         -6.61e-03
                   -3.48e-02 -9.98e-03
                                        -2.72e-03 4.21e-02 -9.32e-02 1.008
## 30
## 31
         -4.07e-02
                   -4.30e-02 1.10e-01
                                         4.76e-02 2.34e-02 1.85e-01 1.000
## 32
         -5.70e-03
                   -6.75e-03 1.95e-02
                                         4.23e-03 2.21e-02 4.48e-02 1.001
## 33
         1.02e-03
                    2.72e-02 -2.93e-02
                                        -3.97e-04 -2.49e-02 5.63e-02 1.008
## 34
         9.59e-03
                   -9.09e-03 -7.88e-03
                                        -3.14e-02 -2.09e-02 -7.73e-02 0.997
## 35
         -1.86e-04
                    9.59e-04 -8.44e-04
                                        -5.59e-04 -1.96e-03 -4.54e-03 1.006
                                        -1.45e-04 7.54e-03 4.39e-02 1.011
                   -3.74e-02 1.94e-02
## 36
         -1.68e-04
## 37
         -6.60e-05
                   -1.29e-03 -9.10e-04
                                        -7.66e-04 -6.06e-05 2.88e-03 1.006
## 38
         7.92e-03
                    2.18e-02 -4.43e-02
                                        -2.08e-02 -7.02e-03 -5.84e-02 1.004
## 39
         -2.76e-03
                   -1.33e-02 7.80e-03
                                        -4.46e-03 -3.30e-05 2.69e-02 1.003
## 40
         -9.14e-04
                    4.77e-03 2.62e-03
                                         7.24e-03 4.16e-03 1.51e-02 1.004
## 41
                    1.25e-03 -1.63e-02
                                        -2.78e-03 -5.76e-03 3.60e-02 1.003
         -6.42e-03
## 42
        -1.18e-03
                   -1.65e-02 6.73e-03
                                         1.56e-03 3.78e-03 2.39e-02 1.005
## 43
         4.70e-05
                   -1.21e-03 2.12e-03 -2.88e-03 7.19e-03 2.37e-02 1.006
## 44
         1.37e-03
                    4.23e-03 1.15e-02
                                         8.69e-03 -2.63e-02 4.21e-02 1.008
```

```
## 45
         -2.78e-03
                     8.62e-03 9.43e-03 -7.57e-03 2.75e-02 7.71e-02 0.996
## 46
                                          1.45e-02 -9.96e-03 4.38e-02 1.010
          1.14e-03
                   -5.35e-03
                              2.25e-02
## 47
         3.38e-04
                     3.48e-04
                              6.44e-04
                                          2.17e-04 -9.08e-04 -3.85e-03 1.006
## 48
         -7.18e-04
                     1.82e-03
                              7.14e-04
                                          2.70e-03 1.81e-03 7.71e-03 1.004
## 49
         -9.15e-05
                    -3.81e-03
                              1.70e-02
                                          1.74e-02
                                                   1.33e-02 3.55e-02 1.004
                   -3.52e-03 -1.22e-03
                                                   1.45e-02 3.87e-02 1.003
## 50
         -3.97e-03
                                         -2.11e-03
## 51
         -3.18e-03
                    -2.49e-02 7.39e-03
                                         -7.22e-03 2.54e-03 3.02e-02 1.005
## 52
          5.69e-03
                     1.58e-02 1.33e-02
                                          2.39e-02 -3.76e-02 8.14e-02 1.005
## 53
         9.16e-03
                     2.65e-02 7.49e-03
                                         -1.78e-02 -1.32e-02 -7.51e-02 1.006
## 54
         -1.72e-03
                     4.36e-03 -4.41e-03
                                          2.50e-03 1.00e-02 2.27e-02 1.004
## 55
         -8.89e-03
                    -6.40e-02 2.79e-02
                                         -2.06e-02 -8.67e-04 1.01e-01 1.002
                                          8.08e-03 1.06e-02 2.54e-02 1.004
## 56
         -2.17e-03
                     8.94e-03 3.65e-03
## 57
         -1.15e-04
                     1.59e-03 1.14e-03
                                         -3.28e-05 -6.93e-04 -3.55e-03 1.007
                                         -1.40e-02 -1.80e-02 -6.58e-02 0.999
## 58
          9.52e-03
                    -1.13e-03 -2.17e-02
## 59
                     2.34e-02 1.07e-02
                                          3.69e-02 1.54e-02 5.99e-02 0.997
         -2.19e-03
## 60
         -5.98e-04
                    -1.27e-03 1.64e-03
                                          6.64e-04 -8.72e-03 1.11e-02 1.009
                                         -6.15e-03 -6.35e-03 -1.85e-02 1.004
## 61
          3.69e-03
                    -7.15e-03 -6.87e-03
## 62
         1.41e-03
                   -3.83e-03 -3.78e-04
                                         -7.67e-04 2.22e-03 -1.23e-02 1.005
                                          9.69e-04 6.92e-03 1.79e-02 1.003
## 63
         -3.51e-03
                   -3.46e-03 2.35e-03
## 64
         3.40e-03
                     2.60e-04 -4.45e-03
                                         -4.51e-03 -8.38e-03 -1.91e-02 1.005
## 65
         -8.06e-04
                   -8.77e-03 3.92e-03
                                         -8.29e-03 8.65e-03 3.41e-02 1.004
         3.16e-04
                   -6.40e-04 6.35e-03
                                          5.22e-03 -1.02e-02 1.53e-02 1.009
## 66
                   -5.81e-04 -1.11e-02
                                         -2.42e-02 2.45e-02 -5.06e-02 1.008
## 67
         -1.39e-03
                                          1.47e-04 2.92e-04 1.22e-03 1.005
## 68
         -2.64e-04
                    -1.98e-04 7.63e-05
## 69
         -3.11e-03
                   -3.05e-02 4.16e-03
                                         -2.78e-03 -1.97e-02 -7.25e-02 0.998
## 70
         -1.35e-03
                    -3.35e-03 3.08e-03
                                         -3.68e-03 3.49e-03 1.89e-02 1.005
## 71
         -1.72e-03
                     3.37e-03 -4.08e-03
                                         -1.01e-03 4.92e-03 1.15e-02 1.005
## 72
         3.99e-04
                     1.45e-03 -4.65e-04
                                         1.34e-04 -1.16e-03 -3.29e-03 1.006
## 73
         1.12e-02
                                          7.11e-03 -7.63e-02 1.48e-01 0.995
                    -5.85e-03 1.40e-02
## 74
         7.45e-06
                     5.26e-04 -2.48e-03
                                         -8.58e-04 -1.17e-03 -4.18e-03 1.007
                                          1.38e-04 2.87e-04 6.19e-04 1.006
## 75
          6.41e-06
                     8.33e-05 -8.37e-05
## 76
          2.78e-04
                     4.20e-03 -1.20e-03
                                         -5.97e-04 -2.05e-03 -8.78e-03 1.005
## 77
         -7.33e-04
                     2.06e-02 1.58e-04
                                          2.18e-02 -9.50e-02 1.28e-01 0.992
                     7.47e-03 9.51e-03
                                          1.52e-02 1.39e-02 4.17e-02 1.004
## 78
         4.98e-03
## 79
         -9.83e-03
                    -6.47e-02 -2.20e-02
                                         -5.39e-03 4.63e-03 9.16e-02 0.989
## 80
                     4.92e-04 -7.56e-04
                                         -6.10e-04 -8.35e-05 -1.42e-03 1.005
         1.47e-04
## 81
         -3.12e-03
                     5.28e-03 -2.46e-02
                                          3.93e-03 7.65e-03 5.75e-02 1.004
## 82
         -4.06e-03
                     1.01e-02 -5.14e-03
                                         -7.21e-03 4.49e-03 -2.61e-02 1.003
## 83
         -7.74e-04
                    -6.24e-03 3.72e-03
                                          7.77e-03 -2.22e-03 2.43e-02 1.005
                                          1.95e-02 1.74e-02 6.59e-02 1.001
## 84
          1.77e-03
                     2.82e-04 -1.32e-02
                                         -2.64e-03 2.70e-03 -8.80e-03 1.007
## 85
         6.82e-04
                   -4.18e-03 6.59e-04
          4.67e-03
                     4.52e-04 -3.91e-03
                                         -2.75e-03 5.30e-03 -2.50e-02 1.002
## 86
## 87
          2.68e-02
                   -2.33e-03 -2.97e-02
                                          5.43e-02 -6.39e-03 -9.38e-02 0.999
## 88
         -1.12e-05
                   -7.11e-05 1.20e-04
                                          8.54e-05 -6.36e-05 2.50e-04 1.006
## 89
          2.97e-04
                     2.80e-03 -3.06e-03
                                         -2.82e-03 -1.37e-03 -8.52e-03 1.005
                     3.24e-03 1.12e-03
                                         -2.66e-03 5.82e-04 -8.45e-03 1.007
          3.94e-04
## 90
## 91
         -3.19e-04
                   -6.37e-03 1.20e-02
                                          1.10e-02 -3.37e-03 1.97e-02 1.005
## 92
         -2.28e-03
                    -4.02e-03 2.26e-03
                                         -7.89e-03 -5.24e-04 -2.25e-02 1.005
## 93
         -1.89e-02
                   -7.57e-02 -1.81e-02
                                          7.81e-03 -1.33e-03 1.23e-01 0.992
## 94
         -2.53e-04
                    -1.19e-04 -3.85e-04
                                          1.52e-04 -4.73e-05 1.08e-03 1.007
## 95
                     3.52e-03 9.24e-04
                                         -9.70e-04 4.15e-04 -8.22e-03 1.006
         1.81e-03
## 96
         -1.06e-02
                     2.61e-02 -5.96e-02
                                          5.55e-03 1.14e-02 1.29e-01 0.998
## 97
         -3.20e-03
                     2.71e-03 7.02e-04
                                         -5.92e-03 4.57e-03 -1.79e-02 1.004
## 98
         1.05e-02 -4.05e-03 1.64e-03
                                          2.22e-02 -1.63e-02 -5.34e-02 0.998
```

```
## 99
         -1.22e-03 -4.87e-04 -2.24e-03
                                          7.52e-04 -3.43e-05 6.47e-03 1.006
## 100
                     4.22e-04 -5.54e-04
                                         -8.94e-04 4.99e-04 -2.02e-03 1.006
          2.06e-04
                   -2.25e-03 3.22e-03
                                         -4.16e-04 1.28e-03 -5.58e-03 1.007
## 101
         1.54e-04
## 102
         -9.50e-03
                   -4.82e-04 -1.99e-04
                                         -9.88e-04 8.43e-03 4.77e-02 1.005
## 103
          2.43e-03
                     1.42e-02 -8.31e-02
                                          3.39e-03
                                                   2.63e-03
                                                             1.22e-01 0.994
         -2.68e-02
                     1.37e-02 -1.24e-02
                                          2.20e-02 -1.07e-02 1.16e-01 1.006
## 104
                    -3.91e-02 3.32e-02
## 105
          3.63e-03
                                         -1.71e-02 6.48e-04 -1.01e-01 0.993
                                         -2.52e-03 6.53e-03 1.20e-02 1.011
## 106
         -4.02e-03
                     2.22e-03 8.06e-05
## 107
         -4.70e-03
                     1.03e-03 -3.53e-04
                                          4.16e-03 4.79e-04 2.41e-02 1.006
## 108
         -2.33e-03
                     8.06e-03 -6.91e-03
                                          1.01e-04 -3.73e-03 1.67e-02 1.007
## 109
          3.34e-03
                    -7.10e-03 9.18e-03
                                         -5.12e-03 1.33e-03 -2.37e-02 1.010
                     1.23e-03 -9.68e-03
                                          7.91e-04 -1.47e-03 -3.82e-02 1.001
## 110
          5.99e-04
## 111
         -5.77e-03
                   -1.41e-03 -8.41e-03
                                          3.04e-03 -5.20e-03 3.36e-02 1.004
## 112
          4.26e-03
                   -2.66e-02 1.59e-02
                                         -2.57e-02 -3.87e-03 7.93e-02 0.998
## 113
         -3.95e-03
                     3.24e-03 -1.83e-03
                                          2.15e-03 -3.29e-04 -1.03e-02 1.010
## 114
         -1.56e-02
                    -6.46e-03 1.19e-02
                                          1.72e-02 2.57e-03 -6.02e-02 1.001
                                          2.00e-02 1.24e-02 -6.09e-02 0.999
## 115
         7.04e-03
                    -9.58e-03 -2.83e-03
## 116
          1.20e-01
                    -2.31e-01 2.47e-02
                                         -1.76e-01 -1.11e-02 3.62e-01 0.956
                                         -4.21e-03 -8.45e-04 6.63e-03 1.007
## 117
         -6.36e-04
                   -1.21e-03 1.22e-03
## 118
          3.38e-03
                   -1.53e-02 1.97e-02
                                         -5.76e-03 -5.78e-03 3.40e-02 1.007
## 119
          1.32e-02
                     1.81e-02 -1.02e-01
                                          3.06e-02 2.07e-02 -2.09e-01 0.974
## 120
          2.99e-02
                   -4.63e-02 -4.16e-02
                                          3.17e-02 -1.36e-02 -1.61e-01 0.973
          1.25e-02
                    -6.93e-03 7.88e-03
                                         -6.25e-03 1.20e-03 3.93e-02 1.006
## 121
                                         -5.71e-02 5.38e-02 3.05e-01 0.965
## 122
          5.68e-02
                    -1.59e-01 -3.95e-02
## 123
          2.87e-02
                    -3.00e-03 1.30e-02
                                         -1.44e-02 1.81e-02 8.86e-02 1.002
## 124
         -1.12e-02
                     1.48e-02 -4.81e-02
                                          2.47e-02 -3.88e-02 -1.09e-01 0.965
## 125
          5.32e-03
                     3.62e-02 1.17e-02
                                          6.31e-02 1.07e-02 -1.55e-01 0.993
## 126
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                     6.17e-03 1.50e-03
                                          5.07e-03 -3.50e-04 -1.31e-02 1.006
                                                   3.89e-05 3.46e-03 1.006
## 127
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                    -6.87e-04 1.95e-03
                                         -4.40e-04
## 128
          1.97e-02
                    -1.78e-02 -2.17e-03
                                         -6.10e-03
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## 129
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                     8.95e-05 5.72e-06
                                          1.47e-04
                                                    6.53e-05 -4.36e-04 1.006
## 130
          2.03e-03
                     2.74e-03 9.17e-04
                                          1.20e-02
                                                    1.05e-03 -2.66e-02 1.005
## 131
          6.30e-04
                     6.96e-03
                              1.56e-02
                                          8.11e-03
                                                    2.56e-03 -2.41e-02 1.005
## 132
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                    -2.25e-04
                              5.21e-05
                                         -6.07e-05
                                                    5.98e-05 4.05e-04 1.006
## 133
          2.71e-03
                     3.53e-03
                              6.42e-03
                                          4.57e-03
                                                    1.28e-03 -1.17e-02 1.006
## 134
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                     4.82e-03 -4.07e-04
                                          1.39e-03
## 135
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                     8.47e-04 2.19e-03
                                          1.35e-03
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## 136
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## 137
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         -5.53e-04
## 138
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## 139
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         -1.46e-03
                     1.31e-03 3.68e-04
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                    -2.02e-03 -1.98e-04
## 141
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## 142
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                                          1.05e-04 -9.51e-05 2.07e-03 1.008
## 143
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## 144
         -6.25e-03
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                                         -2.10e-03 -1.54e-03 -8.64e-03 1.008
## 145
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                     7.19e-03 4.46e-03
                                          2.04e-03 -2.08e-03 -2.68e-02 1.009
                                         -3.49e-04 -6.27e-03 2.90e-02 1.006
## 146
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                     5.60e-03 -5.86e-03
          1.00e-02
## 147
                    -8.16e-03 -1.53e-03
                                         -5.85e-03 1.55e-03 2.97e-02 1.017
## 148
         -2.47e-03
                    -2.37e-02 3.22e-03
                                         -1.34e-02
                                                    1.66e-02 -5.83e-02 1.003
## 149
                   -4.06e-03 5.61e-03
                                                    1.46e-03 -3.48e-02 1.008
         -3.19e-03
                                          2.72e-03
## 150
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                     1.41e-02 -4.92e-03
                                         -1.30e-02 -3.96e-03 8.11e-02 1.030
## 151
         -1.83e-03
                   -4.07e-03 6.30e-03
                                          3.34e-03 3.57e-03 -1.87e-02 1.007
## 152
         -6.39e-04 -7.65e-03 3.93e-03
                                          1.63e-03 5.48e-03 -2.52e-02 1.009
```

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## 153
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         -1.41e-02
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## 154
                    -1.42e-03
                              2.93e-03
## 155
          2.01e-03
                    -1.67e-03 7.62e-04
                                          1.46e-03 -1.18e-04 1.01e-02 1.006
## 156
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                                         -1.14e-03 -3.53e-03 2.78e-02 1.017
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         -1.11e-02
                     4.58e-04 2.51e-03
                                          1.45e-03 1.50e-03 -1.60e-02 1.010
## 158
## 159
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                                         -7.78e-04 -2.34e-03 9.92e-03 1.006
                     1.61e-02 1.71e-03
## 160
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## 161
         -8.62e-05
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                                         -1.44e-02 -1.22e-02 3.62e-02 1.020
## 162
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## 163
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                     2.68e-02 -4.09e-03
                                         -2.22e-02 -2.07e-02 -8.00e-02 1.005
## 164
         -5.15e-02
## 165
          3.08e-03
                    -3.45e-04 1.07e-04
                                          9.86e-04 2.93e-04 3.92e-03 1.013
## 166
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## 167
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         -1.16e-02
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## 169
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## 170
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## 172
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## 173
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## 176
          4.98e-02
## 177
          6.91e-02
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                                         -1.69e-03 -1.86e-02 7.95e-02 1.053
## 178
         -9.13e-03
                     1.15e-03
                              1.06e-03
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## 179
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                              5.63e-03
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                                          1.11e-02 1.47e-02 1.04e-01 1.014
## 181
          7.89e-02
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## 183
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                                          1.58e-02 -2.20e-02 -7.40e-02 1.002
## 184
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                                          2.42e-02 -5.77e-02 2.47e-01 1.049
## 185
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## 186
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                    -1.76e-03 5.19e-04
## 187
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                     4.15e-02 -1.37e-02
                                         -1.89e-02 3.69e-02 -8.82e-02 1.007
## 188
                     2.16e-02 1.49e-03
                                         -2.03e-03 -8.15e-03 -6.68e-02 1.015
         -5.30e-02
## 189
         -4.47e-02
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## 190
          5.58e-02
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                                         -1.39e-02 1.12e-02 9.82e-02 1.009
## 191
         -1.53e-02
                    -3.03e-03
                              6.26e-04
                                         -6.91e-03 -4.63e-03 -1.83e-02 1.014
          7.71e-06
                                         -4.60e-05 1.88e-05 -3.44e-04 1.007
## 192
                     1.98e-04 3.21e-05
## 193
                    -5.35e-04 8.23e-03
                                         -6.41e-04 -2.49e-03 -1.38e-02 1.006
          2.59e-05
## 194
         -8.20e-02
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                                         -2.70e-02 1.60e-02 -9.01e-02 1.053
## 195
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                                          1.97e-03 -7.01e-03 -4.85e-02 0.999
## 196
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                     2.45e-02 -5.33e-03
## 197
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                     2.94e-02 -3.56e-03
                                         -5.35e-03 2.89e-03 -3.94e-02 1.002
## 198
         -1.52e-02
                     1.21e-02 1.62e-02
                                         -1.14e-02 -1.52e-02 -6.52e-02 1.001
## 199
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                                         -6.50e-03 -3.36e-03 -1.45e-02 1.006
## 200
         -1.58e-03
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                                         -2.63e-03 -5.17e-03 -2.28e-02 1.004
## 201
          2.86e-03
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                                          7.28e-04 -2.31e-02 2.74e-02 1.007
                     1.18e-03 5.27e-02
## 202
          8.93e-03
                                          4.60e-02 -2.16e-02 -1.59e-01 1.006
                     5.31e-02 -1.90e-02
## 203
                                          1.55e-02 -1.49e-03 8.95e-02 0.998
         -3.97e-03
## 204
          1.54e-03
                    -3.44e-03 1.83e-03
                                         -3.04e-03 1.90e-03 -1.14e-02 1.006
## 205
         -1.24e-02
                    -5.14e-03 7.32e-03
                                         -1.14e-04 5.76e-03 3.96e-02 1.004
## 206
         -9.16e-03
                     2.89e-02 8.28e-03
                                          1.50e-02 -1.12e-02 6.08e-02 1.004
```

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## 207
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## 208
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         -9.80e-04
                     2.63e-02 -6.82e-02
                                          6.78e-03 -1.02e-01
## 209
         -1.75e-02
                                                             2.11e-01 0.983
## 210
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                     2.66e-02 5.03e-03
                                          5.17e-03 -1.10e-02 7.75e-02 1.018
## 211
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                                         -8.07e-03 -1.75e-04
                                                              2.90e-02 1.004
                     8.31e-03 -9.40e-03
                                          4.73e-03 2.12e-02 4.62e-02 1.005
## 212
         -3.33e-03
## 213
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                    -7.48e-04 4.15e-03
                                          6.17e-03 -5.38e-05 -1.07e-02 1.005
## 214
         -2.29e-04
                    -1.41e-02 -1.14e-02
                                         -1.65e-02 -1.91e-03 -4.04e-02 1.007
## 215
         -1.67e-03
                    -8.83e-03 7.46e-03
                                          9.72e-03 3.37e-02 8.48e-02 0.999
## 216
          8.91e-03
                     3.83e-02 -6.06e-02
                                         -5.66e-04 1.34e-02 1.01e-01 1.004
## 217
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                     8.57e-04 6.90e-03
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                                          2.18e-04 -1.74e-05 -1.12e-03 1.007
## 218
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## 219
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                     5.59e-02 7.47e-03
                                          3.45e-02 -2.09e-02 1.09e-01 0.995
## 220
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                    -1.24e-02 -8.07e-03
                                         -2.59e-02 2.37e-02 6.69e-02 1.004
## 221
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          1.39e-03
## 222
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                                         -6.31e-03 -7.96e-03 -1.62e-02 1.007
                    -4.27e-03 -1.41e-03
## 223
          1.42e-03
                                          2.35e-03 1.49e-03 -1.49e-02 1.005
## 224
         -5.03e-03
                    -6.11e-04 -3.20e-03
                                         -8.72e-03
                                                   1.05e-02 3.33e-02 1.001
## 225
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         -4.40e-03
                     1.49e-03 -1.79e-02
## 226
         -1.54e-03
                     1.21e-03 -1.08e-03
                                          3.94e-03 4.38e-03
                                                              2.34e-02 1.004
## 227
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                     3.64e-03 3.50e-03
                                          2.69e-03 -1.02e-03
                                                             7.77e-03 1.008
## 228
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                     1.06e-02 -2.24e-02
                                          1.66e-02 2.21e-02
                                                             6.40e-02 1.007
## 229
                     1.86e-02 -3.60e-03
         -2.57e-03
                                          7.72e-03 -8.07e-04
                                                              3.02e-02 1.009
                                          3.65e-04 -7.53e-03
## 230
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                     1.63e-02 4.45e-05
                                                              4.42e-02 1.008
## 231
         -6.07e-03
                   -1.12e-02 -1.60e-02
                                          2.84e-03 6.33e-03 4.68e-02 1.000
## 232
         4.98e-03
                    -2.77e-03 2.14e-03
                                          1.10e-02 1.47e-03 -2.37e-02 1.006
## 233
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                                         -2.21e-03 -1.72e-03 -4.44e-03 1.007
          4.44e-04
                   -1.34e-03
## 234
         -1.13e-03
                              1.18e-03
                                          2.41e-03 -1.26e-03
                                                             5.85e-03 1.006
## 235
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         -2.99e-03
                   -4.62e-03 5.68e-03
## 236
          1.07e-03
                   -1.70e-03 -8.49e-04
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## 237
         -2.05e-02
                    -9.81e-03 -2.30e-02
                                         -2.38e-02
                                                    2.94e-02
                                                              1.04e-01 0.984
## 238
         -1.56e-02
                     3.79e-02 -5.39e-02
                                          1.78e-02 4.43e-02
                                                              1.36e-01 0.993
## 239
          4.73e-05
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                    -1.72e-02 1.75e-02
## 240
         -1.20e-02
                                          1.50e-02 2.41e-02
                                                              6.54e-02 0.998
## 241
         -9.87e-03
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                                         -1.86e-03
                                                   1.06e-02
                                                              5.60e-02 1.005
## 242
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          1.14e-03
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## 243
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                                                             7.93e-02 1.006
## 244
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                                          2.52e-04 2.86e-03
                                                              2.62e-02 1.009
## 245
         -9.15e-04
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                                          1.52e-02
                                                   6.47e-03
                                                              2.53e-02 1.016
                    -6.53e-04 5.08e-03
                                          1.14e-02 2.92e-02
## 246
         -2.10e-02
                                                              7.81e-02 0.991
## 247
         -1.41e-02
                   -1.52e-02 -6.02e-03
                                         -2.61e-03 -9.44e-03
                                                              5.63e-02 0.993
## 248
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                   -2.48e-03 -5.78e-03
                                         -2.18e-03 1.80e-03
                                                              1.39e-02 1.004
## 249
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                                         -4.31e-03 1.83e-03
                                                              1.23e-02 1.007
## 250
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                                          2.59e-02 5.16e-02 1.43e-01 0.981
## 251
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                     1.65e-04 2.52e-04
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## 252
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                     1.77e-02 -1.92e-04
                                          1.01e-02 -6.50e-03 3.39e-02 1.008
## 253
         -2.45e-03
                    -1.33e-02 1.00e-03
                                         -1.99e-03 -2.58e-03
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## 254
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                                          5.30e-02 -1.92e-01
                                                             3.70e-01 0.965
## 255
         -2.65e-02
                    -3.08e-02 7.98e-03
                                         -5.67e-02 6.30e-03 1.40e-01 0.999
## 256
          3.86e-03
                     9.35e-02
                              1.80e-02
                                          1.87e-02 -5.90e-02 -3.76e-01 0.989
## 257
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         -7.75e-03
                     1.15e-02 2.73e-03
## 258
         2.14e-03
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                                         -2.00e-03 9.45e-03 -7.40e-02 1.001
## 259
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## 260
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```

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          1.50e-04
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## 361
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## 362
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## 366
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## 367
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## 368
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```

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## 369
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## 370
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                     1.04e-02
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                               1.18e-02
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## 374
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## 375
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## 376
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## 377
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## 378
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## 387
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## 390
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          7.22e-05
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## 393
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## 398
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                                         -1.20e-03
                                                    1.35e-03
                                                              4.66e-03 1.009
                     3.97e-03 -3.62e-04
## 404
          3.59e-04
                                         -9.33e-04
                                                    1.21e-03 8.51e-03 1.005
## 405
         -4.21e-03
                     9.81e-03 -8.64e-03
                                         -7.99e-03
                                                    1.53e-02 2.99e-02 1.005
## 406
          2.19e-03
                     3.98e-04 -6.02e-04
                                         -5.47e-04 9.29e-04 3.66e-03 1.006
## 407
                     5.07e-03
                               7.74e-04
                                          9.74e-03 -1.53e-02 -3.96e-02 1.005
          2.39e-03
                    -1.89e-02 9.58e-03
                                          1.74e-03 -6.11e-03 -2.82e-02 1.004
## 408
         -3.17e-03
                                          4.40e-03 -2.22e-03 -1.03e-02 1.006
## 409
         -1.84e-03
                     3.27e-04
                               4.98e-03
         -8.93e-03
                    -1.32e-03
                               1.63e-02
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## 410
                    -2.95e-02
## 411
          4.00e-03
                              4.74e-02
                                          5.91e-03 -2.09e-02 -6.62e-02 1.002
## 412
          3.21e-03
                    -1.31e-02 2.66e-02
                                          1.84e-02 -1.63e-02 -6.01e-02 1.007
## 413
          4.23e-04
                     7.33e-03 4.84e-03
                                          4.75e-03 -9.53e-04 -2.49e-02 1.005
                                         -3.63e-03 3.09e-03 1.01e-02 1.007
## 414
          2.97e-04
                     3.42e-03 -7.32e-03
## 415
          1.58e-02
                     1.46e-02 -1.31e-02
                                          2.93e-02 -3.39e-02 -6.80e-02 0.993
## 416
          3.43e-03
                    -1.28e-02 9.18e-04
                                         -4.32e-03 -9.96e-03 -3.45e-02 0.999
## 417
          1.11e-03
                    -1.88e-03 -2.76e-03
                                         -1.20e-03 4.52e-03 1.77e-02 1.006
## 418
          2.64e-03
                     9.62e-03
                              1.12e-02
                                          3.83e-03 -3.73e-03 -2.13e-02 1.005
## 419
                                          2.46e-03 2.15e-02 -4.76e-02 1.009
          4.55e-03
                     6.38e-03 7.69e-03
## 420
          1.56e-03
                    -3.31e-03 -3.34e-03
                                         -2.56e-03 7.89e-04 -1.67e-02 1.009
## 421
          2.96e-04
                     2.66e-04 6.70e-04
                                         -3.61e-04 5.24e-05 -2.88e-03 1.007
## 422
         -2.91e-03
                   -6.07e-02 3.46e-02
                                          1.91e-02 -3.56e-02 -1.14e-01 0.992
```

```
## 423
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                     3.32e-02 -4.43e-02 -1.33e-02 1.66e-02 6.90e-02 1.002
                                          6.26e-03 -3.37e-03 -1.86e-02 1.004
## 424
         -4.48e-03
                   -3.13e-03 5.20e-03
## 425
         8.56e-03
                   -9.96e-03 -5.98e-03
                                         -8.27e-04 -1.44e-02 -5.15e-02 1.004
## 426
         -1.13e-05
                   -2.11e-03 -4.60e-03
                                         -1.83e-03 6.11e-03 1.77e-02 1.005
## 427
         -2.79e-04
                     2.89e-03 1.47e-02
                                         -1.18e-03 -7.98e-03 -2.68e-02 1.008
## 428
         -4.46e-03
                              1.31e-02
                                          1.51e-03 -4.43e-03 -2.54e-02 1.005
                   -3.96e-03
## 429
                                          1.21e-02 -4.56e-03 -2.30e-02 1.004
         -5.16e-03
                   -1.33e-03
                              4.56e-03
                                          1.86e-03 7.93e-03 -1.10e-02 1.008
          4.16e-04
## 430
                     3.14e-03
                              5.28e-04
## 431
         -1.66e-04
                   -1.15e-03 4.05e-04
                                         -1.06e-03 1.59e-03 -5.48e-03 1.010
## 432
         -2.92e-03
                     3.21e-04 -8.07e-04
                                         -1.32e-03 -4.16e-03 -1.06e-02 1.005
## 433
         -1.05e-03
                   -7.45e-04
                              2.17e-03
                                          1.45e-03 -1.60e-03 -5.95e-03 1.005
## 434
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         -1.97e-03
                   -1.93e-03
                              4.83e-04
## 435
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                   -6.75e-03 3.02e-03
                                         -4.92e-03 2.02e-02 -3.95e-02 1.007
                   -4.38e-03 9.59e-03
## 436
         2.98e-03
                                         -1.10e-02 3.37e-02 -6.66e-02 1.004
## 437
                   -2.83e-03 2.26e-04
                                          1.54e-03 -5.15e-03 -2.38e-02 1.004
          2.71e-03
## 438
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                                         -2.70e-03 9.82e-04 9.11e-03 1.005
## 439
                                         -8.90e-03 5.72e-03 1.63e-02 1.005
         -1.99e-03
                     1.71e-03 -3.84e-03
## 440
         -8.72e-03
                     6.83e-03 -2.19e-02
                                         -3.50e-02 -4.11e-02 6.34e-02 1.010
                                          2.26e-02 -1.50e-02 -6.49e-02 1.002
## 441
         -7.23e-03
                    -2.24e-02 3.58e-02
## 442
         9.16e-03
                     1.29e-02 3.68e-03
                                         -8.28e-03 -3.67e-02 7.07e-02 1.003
## 443
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                   -4.78e-03 1.44e-03
                                         -3.95e-04 3.78e-04 -6.06e-03 1.007
## 444
         -6.66e-03
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                                         -7.08e-03 2.32e-02 -4.25e-02 1.008
## 445
                   -1.71e-03 3.88e-03
                                                   1.20e-03 -1.13e-02 1.006
          1.48e-03
                                          1.33e-03
                                         -1.77e-03 2.62e-02 -5.08e-02 1.010
## 446
          2.91e-03
                     1.91e-03 -1.01e-02
## 447
         -9.55e-03
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                                         -1.26e-02 4.99e-02 -1.13e-01 1.001
## 448
          3.99e-03
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                                         -4.55e-02 -4.10e-02 -1.62e-01 1.000
## 449
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                     1.29e-03 -1.86e-03
                                          4.54e-03 6.61e-03 1.56e-02 1.006
## 450
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                                         -2.21e-04 1.06e-02 -1.58e-02 1.008
## 451
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          1.47e-02
                   -2.87e-04 -2.58e-06
## 452
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                     9.87e-04 -4.56e-04
                                          2.53e-04 -7.56e-04 -2.48e-03 1.005
                    -2.91e-02 2.36e-02
## 453
         -2.91e-03
                                          1.72e-02 -2.07e-02 -5.99e-02 1.004
## 454
          2.84e-03
                    -1.38e-02 4.65e-03
                                         -6.89e-03 8.39e-04 -3.27e-02 1.006
## 455
         -3.30e-04
                    -1.98e-03 -1.39e-02
                                         -3.53e-03 -3.56e-03 2.31e-02 1.006
                                         -1.72e-02 -5.55e-02 -1.28e-01 1.004
## 456
          2.68e-02
                   -2.12e-02 -9.76e-03
## 457
         -3.30e-03
                    -5.71e-03 -1.46e-03
                                          1.62e-04 -4.66e-03 2.37e-02 1.004
                   -1.42e-02 2.73e-02
                                          2.75e-02 -2.55e-02 9.70e-02 0.991
## 458
         2.05e-02
## 459
          1.38e-03
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                                          1.47e-03 1.99e-03 -7.12e-03 1.008
## 460
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                                         -7.39e-03 1.43e-02 -4.81e-02 1.004
## 461
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                     4.34e-02 8.87e-03
                                          3.51e-03 1.34e-02 -7.09e-02 1.004
                                          2.14e-02 -3.32e-03 1.01e-01 1.003
## 462
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                                         -3.38e-03 2.67e-04 -1.60e-02 1.009
## 463
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                    -3.92e-03 6.81e-03
## 464
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                    -1.34e-02 3.06e-02
                                         -1.06e-02 7.70e-03 -1.36e-01 0.995
                   -4.05e-03 -5.14e-03
## 465
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                                          1.86e-02 7.74e-03 -5.73e-02 1.002
## 466
          1.40e-02
                   -8.01e-02 3.56e-02
                                          3.00e-03 -9.62e-03 1.37e-01 0.996
## 467
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                     1.23e-03 -1.38e-02
                                          1.99e-02 7.62e-03 6.86e-02 1.005
## 468
          1.16e-04
                     1.44e-03 -4.67e-03
                                         -1.85e-03 2.91e-03 -1.54e-02 1.007
## 469
         -3.08e-02
                    -7.03e-02 -1.81e-02
                                         -6.02e-02 -1.87e-02 1.39e-01 0.987
## 470
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                     6.78e-03 5.20e-03
                                         -3.51e-03 3.09e-05 -2.14e-02 1.008
## 471
         -2.69e-03
                    -3.20e-03 -1.41e-02
                                         -2.42e-02 -1.30e-02 -5.92e-02 1.006
                                          1.56e-02 -4.57e-03 1.39e-01 0.993
## 472
          4.74e-03
                     2.84e-02 5.18e-02
## 473
                                         -3.07e-04 -5.60e-04 -1.75e-02 1.010
         -4.18e-04
                   -9.63e-03 8.98e-03
## 474
         -9.47e-04
                   -7.01e-02 -5.74e-02
                                         -9.39e-02 -2.11e-02 -1.79e-01 0.993
## 475
         1.92e-03
                   -4.06e-03 3.14e-03 -1.07e-02 1.71e-03 -2.97e-02 1.006
## 476
         -1.94e-03 -4.05e-03 -5.10e-02 -9.70e-02 -1.11e-02 -1.60e-01 0.993
```

```
## 477
          2.96e-03
                     9.11e-03 -1.86e-03
                                        -9.58e-03 1.73e-03 -3.01e-02 1.003
                                         -5.48e-02 -1.20e-02 -1.18e-01 0.997
## 478
         -6.22e-03
                   -1.58e-02 -8.31e-04
                     2.23e-04 3.69e-05
## 479
         4.19e-04
                                          3.00e-04 1.74e-04 -1.17e-03 1.013
## 480
         -1.18e-03
                   -2.19e-02 1.18e-02
                                          3.67e-03
                                                   3.40e-03 -7.19e-02 1.001
## 481
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                    -3.75e-03 -2.00e-02
                                         -2.03e-03
                                                    1.32e-02 -5.27e-02 1.001
## 482
                     9.63e-04 2.43e-03
                                         -8.08e-04 2.24e-03 -8.46e-03 1.006
         -1.97e-04
## 483
         -1.48e-02
                   -1.24e-02 1.22e-02
                                         -2.04e-02 -8.77e-03 5.24e-02 1.007
                                         -9.96e-03 -2.52e-03 1.47e-01 0.990
## 484
          1.68e-03
                    -4.15e-02 -3.32e-02
## 485
          2.62e-04
                    -2.15e-03 1.08e-03
                                         -5.35e-04 -6.16e-05 -3.42e-03 1.009
## 486
          2.47e-05
                   -2.30e-02 1.37e-02
                                          1.95e-02 -9.28e-03 6.07e-02 1.001
## 487
          1.20e-02
                     1.64e-02 5.74e-02
                                          9.59e-03 3.50e-03 -1.10e-01 0.999
                                         -2.57e-03 -9.22e-04 1.25e-02 1.008
## 488
         -1.57e-03
                    -6.73e-03 -3.74e-03
## 489
         -2.36e-03
                    -1.52e-02 2.10e-02
                                          1.24e-02 -5.97e-03 3.18e-02 1.007
## 490
          2.73e-03
                     2.37e-03 -1.36e-02
                                         -1.19e-02 3.96e-03 -2.18e-02 1.008
## 491
          1.87e-03
                                         -1.53e-02
                                                   1.26e-02 -5.41e-02 1.000
                     3.57e-03 1.31e-02
## 492
         -3.05e-02
                     1.33e-02 -2.63e-02
                                         -4.38e-02 3.41e-02 1.08e-01 1.020
## 493
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                                         -1.34e-03 1.90e-03 -9.97e-03 1.009
## 494
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                    -3.38e-03 -6.76e-02
                                         -8.68e-02 -2.87e-02 -1.57e-01 0.997
                                         -3.60e-02 -4.61e-02 1.76e-01 1.004
## 495
         -4.80e-02
                    -1.49e-02 -1.39e-02
## 496
         5.13e-03
                     1.98e-02 2.89e-03
                                          3.06e-03 2.01e-02 -5.72e-02 1.002
## 497
         -5.20e-04
                     1.91e-02 -4.30e-03
                                         -2.45e-02 9.19e-03 -7.54e-02 1.004
## 498
          5.69e-05
                     1.50e-03 -3.13e-04
                                         -7.01e-05 3.17e-04 -2.12e-03 1.007
                   -1.43e-02 -5.10e-03
                                         -8.94e-03 -7.90e-04 -5.00e-02 1.005
## 499
         -3.01e-03
                                         -7.31e-04 2.51e-03 -1.12e-02 1.007
## 500
          2.06e-05
                     1.83e-03 5.81e-03
## 501
          1.02e-03
                   -2.06e-03 -1.66e-03
                                         -1.67e-03 -6.67e-05 -5.42e-03 1.005
## 502
          1.05e-04
                    -8.15e-05 1.18e-04
                                          1.09e-04 -1.31e-05 -5.85e-04 1.005
## 503
                     1.19e-02 -3.04e-03
                                         -1.60e-03 9.03e-03
                                                             2.51e-02 1.002
          7.66e-03
## 504
         -4.63e-03
                    -3.14e-03 4.30e-03
                                          6.23e-04 8.80e-03
                                                              1.72e-02 1.004
## 505
                                                             6.52e-02 0.998
         -7.87e-04
                     3.00e-02 -2.36e-02
                                          1.84e-04
                                                   3.57e-02
## 506
          1.06e-03
                    -3.71e-04 -4.10e-04
                                         -2.81e-03 2.81e-03
                                                              1.47e-02 1.006
                     8.09e-03 3.68e-03
## 507
         -3.64e-03
                                          6.23e-04 -1.59e-03
                                                              1.96e-02 1.005
## 508
         -1.06e-02
                     1.34e-02 -2.16e-02
                                         -7.46e-03 1.15e-02
                                                              4.34e-02 0.999
## 509
          4.21e-02
                     1.15e-02 -5.08e-03
                                          1.38e-02 -3.96e-02
                                                              7.44e-02 1.005
                     2.25e-02 -4.70e-03
## 510
         -3.54e-02
                                         -1.15e-02 2.70e-02 8.34e-02 0.993
## 511
          1.54e-03
                     5.61e-05 -2.37e-03
                                          1.27e-03 -2.24e-03 -7.12e-03 1.006
## 512
                     2.85e-02 -2.14e-02
                                          3.55e-02 -3.91e-02 1.35e-01 0.997
         -2.83e-03
## 513
         -4.50e-03
                     3.33e-04 -1.77e-02
                                         -1.00e-03 5.87e-03 2.51e-02 1.008
## 514
          2.80e-02
                    -2.22e-02 5.16e-03
                                         -3.37e-02 -7.79e-02 -1.52e-01 0.988
## 515
                    -4.24e-02
                               3.05e-02
                                         -1.30e-02 -1.00e-01
          2.94e-03
                                                             1.24e-01 0.996
         -4.35e-04
                     2.91e-04
                                         -1.50e-03 6.75e-04 3.74e-03 1.006
## 516
                              1.09e-04
                    -2.74e-02 1.70e-02
                                          1.63e-03 -9.77e-03 -3.74e-02 1.003
## 517
         5.61e-03
## 518
         -1.39e-02
                     4.39e-02 -6.94e-02
                                          1.56e-02 4.75e-02 1.20e-01 0.995
## 519
         7.72e-03
                     4.12e-03 -5.51e-03
                                         -3.20e-04 -9.36e-03 -2.13e-02 1.002
## 520
         -1.47e-02
                    -4.55e-03 -2.58e-02
                                         -1.49e-03 2.09e-02 6.55e-02 1.001
## 521
         -6.51e-03
                     9.03e-03 7.62e-03
                                         -3.68e-03
                                                   6.10e-03 2.48e-02 1.003
## 522
         -4.82e-02
                    -2.73e-02 3.91e-02
                                                    9.88e-02 2.20e-01 0.976
                                          8.02e-02
## 523
         -2.50e-02
                     3.91e-03 5.71e-02
                                          3.29e-02 4.52e-02 9.37e-02 0.991
## 524
         -2.63e-02
                     4.08e-04 3.09e-02
                                         -7.10e-03 -1.28e-01 1.82e-01 0.983
          8.18e-03
## 525
                    -6.33e-03 -2.25e-02
                                         -1.86e-02 -2.28e-02 -6.10e-02 1.010
## 526
         7.38e-03
                     2.20e-02 -1.41e-02
                                         -4.69e-03 4.33e-02 -8.64e-02 1.004
## 527
                                         -2.73e-03 7.31e-03 2.13e-02 1.009
         -1.38e-03
                     9.61e-03 -1.45e-02
## 528
         -2.45e-03
                     2.06e-04 -5.14e-03
                                         -2.01e-03 -3.19e-04 1.07e-02 1.006
## 529
         -1.42e-02
                     2.91e-04 1.35e-02
                                          5.25e-03 1.31e-02 5.64e-02 1.000
## 530
          1.40e-03
                   -6.05e-03 -3.14e-05
                                        -1.73e-03 1.07e-02 -1.80e-02 1.009
```

```
## 531
          4.63e-03
                   -6.64e-03 -5.36e-03
                                         -8.79e-03 7.24e-03 2.01e-02 1.004
## 532
         -3.03e-04
                     1.90e-03 1.45e-04
                                          4.45e-04
                                                    1.05e-04 3.78e-03 1.006
## 533
         -7.33e-03
                    -6.47e-03
                              1.23e-02
                                          2.59e-05
                                                   4.60e-03
                                                              3.35e-02 1.003
## 534
         -9.78e-04
                    -1.11e-03
                              2.28e-03
                                          1.38e-03 -7.63e-03
                                                              1.10e-02 1.008
## 535
         -1.38e-02
                     1.06e-02 -8.11e-03
                                         -5.23e-03 1.58e-02 3.54e-02 1.000
## 536
         -4.98e-05
                    -2.36e-04 2.49e-05
                                          3.88e-05 -6.32e-04 -1.18e-03 1.005
## 537
          8.57e-02
                    -1.13e-03 -6.49e-02
                                         -3.69e-02 2.87e-02 1.40e-01 0.983
## 538
          2.77e-03
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                                          4.23e-03 -3.20e-03 -1.11e-02 1.005
## 539
          1.42e-04
                    -1.66e-03 1.27e-03
                                          7.14e-04 5.83e-03 -8.15e-03 1.008
## 540
          1.94e-04
                    -2.08e-02 1.22e-02
                                         -5.80e-03 -3.24e-02 5.14e-02 1.007
## 541
         -8.79e-04
                     4.29e-04 -1.08e-03
                                          2.07e-03 3.83e-03
                                                              8.19e-03 1.009
## 542
         -7.39e-05
                     1.91e-04 5.39e-04
                                          3.11e-04 -7.69e-03
                                                              9.13e-03 1.009
## 543
         -6.74e-03
                    -4.99e-03 -2.03e-03
                                          1.05e-03 -1.78e-02
                                                              3.49e-02 1.007
                    -1.20e-02 -3.49e-02
## 544
         -8.56e-03
                                         -3.06e-02 -6.60e-02
                                                              9.49e-02 1.003
## 545
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                     1.08e-02 -6.06e-03
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## 546
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                    -1.80e-03 -3.70e-03
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                                         -2.69e-03 4.91e-03
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## 547
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                     5.03e-03 2.35e-03
## 548
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                                         -6.69e-03
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                     2.57e-03
## 550
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                     1.89e-02
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                                                              4.83e-02 1.000
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                                         -1.16e-02 1.74e-02 5.66e-02 1.000
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                                         -1.67e-02 -6.06e-02
                                                              9.89e-02 1.004
                    -2.46e-02 7.59e-03
                                         -7.88e-03 2.27e-02
                                                              5.59e-02 0.998
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## 554
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                    -1.45e-02
                               2.62e-02
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## 555
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                    -8.25e-03
                              5.93e-04
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## 556
          1.04e-02
                    -1.57e-02
                               1.60e-02
                                          3.52e-02 7.41e-02 -1.14e-01 1.002
## 557
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                    -5.92e-04
                               2.32e-02
                                          8.07e-03 -3.28e-02
                                                              5.18e-02 1.006
## 558
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                              6.05e-06
                                          2.70e-04 2.17e-04
                                                              7.31e-04 1.005
## 559
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                     4.96e-02 -6.34e-02
                                         -3.41e-02 3.97e-02
                                                              1.24e-01 0.995
## 560
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                                          8.57e-03 -2.35e-02
                                                              3.60e-02 1.008
                     3.75e-02 -2.85e-02
## 561
          7.29e-03
                                          1.83e-03 1.59e-02
                                                               5.82e-02 0.999
## 562
         -2.43e-02
                    -1.63e-02 -2.22e-02
                                          1.50e-02 -3.40e-02
                                                               1.36e-01 0.997
## 563
          9.20e-03
                     1.82e-03 -4.91e-04
                                         -3.85e-03
                                                   1.07e-02
                                                              2.57e-02 1.004
                                                   4.41e-02
## 564
         -1.23e-02
                    -2.66e-02 4.39e-03
                                         -3.17e-02
                                                              9.65e-02 0.984
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                    -3.39e-03 -3.04e-04
                                         -2.76e-03 -1.48e-02
                                                               1.85e-02 1.008
                     1.74e-02 -3.61e-02
## 566
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                                         -1.67e-02
                                                   1.12e-02
                                                              5.82e-02 1.000
## 567
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                                                    1.06e-02
                                                              2.57e-02 1.004
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                                         -8.37e-04
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                                                    5.29e-03
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                    -1.41e-02 -8.81e-04
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## 571
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## 572
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                                          3.37e-05 4.47e-05 -1.40e-04 1.005
## 573
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## 574
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                                         -2.63e-02 -5.65e-02 9.81e-02 1.003
## 575
         -3.27e-03
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                                         -7.71e-04 9.52e-03 2.46e-02 1.006
## 576
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          1.50e-01
                                          1.98e-02
## 577
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                                          1.09e-02
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## 578
          2.56e-03
                    -6.29e-03 1.17e-02
                                          1.16e-02
                                                    2.48e-02 -4.37e-02 1.008
## 579
         -1.08e-02
                     1.79e-02 -1.36e-02
                                         -1.26e-03
                                                    2.65e-02 5.00e-02 1.002
## 580
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                                          1.21e-02
                                                    2.84e-02 -4.00e-02 1.007
## 581
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                                                    3.67e-03 2.81e-02 1.006
          1.61e-02
                                         -1.02e-03
## 582
         -4.65e-03
                     2.14e-02 -3.07e-02
                                         -1.40e-02
                                                    1.22e-02 4.87e-02 1.003
## 583
          1.27e-03
                     4.43e-03 -4.40e-03
                                          2.10e-03 5.90e-03 -1.01e-02 1.009
                     1.09e-02 1.87e-02
## 584
          8.31e-02
                                          1.12e-03 1.20e-02 9.97e-02 0.997
```

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## 586
         -1.61e-02
                    -6.85e-03 -3.19e-03
## 587
         -3.26e-03
                     5.66e-03 9.80e-03
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## 588
         -2.35e-03
                    -4.38e-03 8.68e-03
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## 589
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                    -5.07e-03 -6.66e-04
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## 590
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## 592
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## 593
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## 594
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## 595
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## 596
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         -1.16e-03
                     4.48e-03
                              4.57e-03
## 597
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## 599
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## 600
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                              7.53e-03
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## 601
          2.31e-03
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## 602
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## 603
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          2.59e-03
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## 604
          5.88e-03
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## 605
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## 606
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## 607
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## 608
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## 609
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## 610
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## 611
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                    -2.15e-02
                               3.98e-02
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## 612
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                                          4.34e-03 -5.72e-03 -1.27e-02 1.005
                     1.14e-02 -3.19e-02
                                         -1.66e-03 -2.43e-02 -8.56e-02 1.001
## 613
          9.82e-03
## 614
          7.62e-03
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                                         -4.28e-04 -1.78e-04 7.88e-04 1.009
## 615
         -1.72e-04
                    -3.97e-04 2.11e-04
## 616
          4.21e-02
                     4.54e-03 -2.60e-02
                                          5.16e-02 -2.92e-02 -1.35e-01 1.007
## 617
          2.34e-02
                    -3.77e-02 2.18e-02
                                          5.73e-02 -3.05e-02 -9.68e-02 0.998
## 618
                    -2.97e-02 2.15e-02
                                          6.17e-02 9.23e-02 -1.59e-01 0.995
          7.61e-03
## 619
          1.84e-04
                    -2.49e-03 2.91e-03
                                          1.77e-03 -3.29e-04 4.99e-03 1.008
## 620
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          5.63e-03
## 621
         -4.24e-03
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                                          1.72e-02 1.64e-02 -1.68e-01 0.978
## 622
          3.30e-03
                    -1.27e-02 -1.88e-03
                                         -6.76e-04 -7.16e-04 -2.51e-02 1.007
## 623
          3.12e-03
                    -8.05e-03 -2.33e-04
                                          7.77e-03 -2.83e-03 -2.06e-02 1.004
                     1.62e-03 -7.29e-03
                                          3.11e-02 -6.81e-03 -4.91e-02 1.007
## 624
          1.27e-02
## 625
                                          1.55e-03 -3.55e-03 -9.89e-02 0.991
          2.34e-02
                     1.77e-03 -4.41e-02
## 626
          1.30e-02
                     1.14e-02 -6.98e-02
                                         -1.67e-02 -2.92e-02 -1.11e-01 1.002
## 627
         -1.77e-02
                    -4.36e-02 -7.47e-02
                                         -7.55e-02 6.05e-03 2.12e-01 0.972
## 628
          3.52e-03
                     1.57e-02 -6.73e-03
                                          7.11e-03 3.39e-03 -2.49e-02 1.005
## 629
          1.55e-03
                     7.15e-03 1.95e-02
                                          8.94e-03 4.52e-03 -3.38e-02 1.004
## 630
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## 631
         -3.12e-04
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## 632
          4.14e-03
                     3.19e-03 -1.27e-02
                                         -8.89e-03 3.25e-03 -2.36e-02 1.005
          2.60e-03
## 633
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                                          6.98e-03 -5.42e-03 -5.10e-02 1.007
## 634
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                     7.34e-03 -1.45e-02
                                         -3.43e-03 -7.51e-04 -2.23e-02 1.010
                    -2.69e-04 -1.79e-03
## 635
                                          3.61e-04 -4.83e-04 3.68e-03 1.007
          1.49e-04
## 636
         -5.60e-04
                     6.72e-03 1.46e-02
                                          1.77e-03 -2.59e-03 4.62e-02 1.001
## 637
         -1.44e-03
                   -9.90e-04 -1.66e-03
                                          5.18e-03 -5.35e-03 2.38e-02 1.004
## 638
         -4.25e-03
                    1.85e-02 3.14e-03
                                          1.28e-02 -1.59e-02 5.22e-02 1.001
```

```
## 639
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                   -1.47e-02 8.66e-03 -2.23e-02 2.31e-03 -5.28e-02 1.005
                     1.29e-02 -2.67e-02
                                        -1.81e-02 -4.65e-03 3.99e-02 1.007
## 640
         -4.19e-03
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## 641
          6.24e-03
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## 642
          1.58e-02
                     4.99e-02 8.81e-03
                                          3.71e-03 2.44e-02 -9.47e-02 0.994
## 643
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                    -1.28e-02 5.41e-03
                                          2.30e-02 5.74e-03 -6.98e-02 0.996
## 644
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                                         -1.46e-04 -1.46e-03 6.72e-03 1.006
         -3.01e-04
                     1.61e-03 -7.01e-03
## 645
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                                         -1.08e-03 -8.91e-04 -1.97e-02 1.005
## 646
          3.38e-03
                    -7.14e-04 -6.20e-03
## 647
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                     2.81e-02 1.22e-02
                                          3.23e-02 2.79e-04 1.50e-01 1.006
## 648
         -5.50e-03
                     2.06e-03 -1.63e-02
                                         -6.46e-03
                                                   3.13e-03 2.57e-02 1.010
## 649
         -6.04e-03
                     1.01e-02 -2.81e-02
                                         -1.27e-02
                                                    1.70e-03 -5.31e-02 0.999
## 650
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          9.07e-04
                     3.04e-02 9.45e-02
## 651
          2.42e-04
                    -8.39e-05 -7.40e-05
                                         -1.26e-04 -2.59e-04 1.26e-03 1.005
## 652
          8.55e-04
                     1.20e-03 7.67e-05
                                          9.36e-04 4.37e-04 -4.76e-03 1.005
## 653
                    -6.51e-03 -2.21e-04
                                         -4.78e-04 -9.57e-04 1.18e-02 1.006
          7.36e-04
## 654
          5.44e-03
                    -1.40e-03
                               8.88e-03
                                          1.04e-02 -1.37e-03 -2.14e-02 1.004
                                          1.87e-03 2.59e-03 -2.03e-02 1.005
## 655
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                     5.26e-03
                              3.40e-03
## 656
          6.29e-03
                    -2.08e-02
                               2.66e-02
                                         -1.42e-02 -8.85e-03 -7.40e-02 1.003
                                          1.97e-02 -4.80e-03 -1.06e-01 1.001
## 657
          6.78e-03
                    -4.43e-02 8.72e-02
## 658
         -3.54e-03
                     2.36e-02 -9.19e-03
                                          3.67e-03 -4.42e-04 -6.85e-02 0.995
## 659
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                                         -2.50e-03 1.49e-03 -1.09e-02 1.004
## 660
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                                         -2.22e-02 -3.17e-02 -1.57e-01 0.987
                     7.69e-03 6.98e-02
                                          3.29e-02 -1.46e-03 -1.03e-01 1.005
## 661
         -8.48e-03
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                                          1.35e-02 -3.51e-03 4.26e-02 1.004
## 662
          6.25e-04
## 663
          2.12e-03
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                                         -2.35e-03 -9.17e-04 -1.78e-02 1.006
## 664
          3.05e-03
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## 665
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                                         -5.36e-04 3.15e-04 -1.21e-03 1.007
## 666
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## 667
         -3.47e-04
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## 668
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                    -5.32e-03 7.12e-03
## 669
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## 670
         -1.22e-02
                    -3.40e-02 -3.22e-02
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## 671
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                    -1.13e-02 2.04e-02
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## 672
          7.95e-03
## 673
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                    -3.65e-02 3.41e-02
                                         -1.95e-02 -2.98e-03 7.96e-02 0.994
## 674
         -1.35e-02
## 675
          1.09e-03
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## 676
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                                          4.89e-04 7.43e-04 -1.07e-02 1.007
## 677
          9.78e-04
                     6.39e-03 -1.07e-03
                                          7.29e-04 -3.82e-04 -1.37e-02 1.004
         -1.43e-03
                     2.37e-03 6.31e-03
                                          2.65e-03 1.45e-03 -2.17e-02 1.005
## 678
                                         -8.29e-04 1.73e-03 -1.02e-02 1.004
## 679
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                     6.25e-04 -1.83e-03
## 680
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                     4.05e-02 -1.06e-02
                                          8.80e-03 -1.00e-03 -7.13e-02 0.989
## 681
          7.26e-03
                     5.38e-03 7.58e-03
                                          8.42e-03 1.57e-03 -3.13e-02 1.003
## 682
         -1.12e-03
                    -8.17e-04 -8.46e-04
                                          3.12e-03 -1.35e-04 7.71e-03 1.006
## 683
          1.35e-03
                    -2.77e-04 9.26e-03
                                          3.93e-03 -1.91e-03 -2.19e-02 1.006
## 684
                     1.39e-02 -1.45e-02
                                         -8.75e-03 5.90e-03 -2.96e-02 1.004
          4.35e-03
## 685
         -2.45e-03
                    -7.65e-04 -6.87e-03
                                         -8.96e-03 6.04e-05
                                                             1.41e-02 1.006
## 686
         -3.39e-03
                     4.00e-03 3.58e-03
                                          5.98e-03 -8.55e-04
                                                             1.68e-02 1.008
## 687
         -7.27e-03
                     2.01e-03 -1.51e-03
                                          3.10e-03 -7.23e-03 3.63e-02 1.003
## 688
         -6.76e-04
                     2.43e-03 -3.07e-03
                                          1.26e-03 -8.94e-04
                                                              6.05e-03 1.006
## 689
          6.24e-04
                     1.44e-03 4.70e-04
                                          4.49e-04 2.41e-03 -7.07e-03 1.006
## 690
          2.95e-03
                     1.48e-02 7.90e-03
                                          2.05e-02 -1.36e-02 6.99e-02 0.997
## 691
         -3.12e-03
                   -1.19e-03 8.92e-04
                                          4.98e-04 -1.38e-03 1.00e-02 1.005
## 692
         -1.41e-03
                   -3.22e-03 -2.96e-03
                                          1.17e-02 6.39e-03 4.43e-02 1.001
```

```
## 693
          1.26e-03
                     7.81e-03 -3.60e-02
                                         -2.65e-02 4.94e-03 5.44e-02 1.010
                                         -2.86e-03 -2.45e-03 1.09e-02 1.006
## 694
          1.62e-03
                     7.64e-05 -2.79e-03
                                          2.39e-03 -1.21e-02 3.23e-02 1.006
## 695
         -4.59e-03
                     6.25e-03 -5.78e-03
## 696
         -3.77e-03
                     1.31e-02 -1.47e-02
                                          8.62e-03 -1.07e-02 4.27e-02 1.002
## 697
         -3.68e-04
                     7.20e-03 2.33e-03
                                          3.48e-03 -7.70e-04 -1.29e-02 1.005
## 698
          2.62e-03
                                         -3.13e-03 5.74e-03 2.86e-02 1.006
                    -1.62e-02 -4.67e-03
## 699
         -8.89e-04
                    -4.05e-04 -9.14e-03
                                           3.83e-04
                                                    2.67e-02 5.75e-02 0.997
## 700
         -3.08e-03
                    -2.77e-03
                              6.66e-03
                                          -4.08e-03
                                                    1.72e-02
                                                               3.91e-02 1.000
## 701
         -1.45e-03
                    -4.99e-05
                               7.18e-03
                                          4.72e-04
                                                    5.76e-04
                                                               1.18e-02 1.005
## 702
         -3.77e-03
                     1.41e-03
                               4.49e-03
                                           1.25e-02
                                                    1.00e-02
                                                              2.39e-02 1.004
## 703
          4.29e-04
                    -6.23e-03
                               1.99e-03
                                          -2.02e-03 -1.54e-03 -8.96e-03 1.007
## 704
                                          -2.57e-03 -2.90e-02
          1.54e-03
                     7.40e-03
                               1.23e-03
                                                              5.64e-02 1.006
## 705
          2.52e-04
                     7.01e-04 -1.23e-03
                                          2.70e-04
                                                    5.93e-04
                                                               2.47e-03 1.005
## 706
                                                    2.04e-02
         -6.96e-03
                    -5.12e-04 5.98e-03
                                           1.56e-02
                                                               3.93e-02 0.998
## 707
         -9.04e-04
                     5.12e-03 -8.84e-03
                                                    8.03e-03
                                                               2.35e-02 1.002
                                          -7.55e-04
## 708
          2.38e-04
                     1.71e-02
                               1.93e-03
                                          6.16e-03
                                                    1.32e-02
                                                               3.10e-02 1.006
## 709
         -9.80e-04
                    -1.64e-03
                               1.32e-03
                                          -2.46e-03
                                                    2.80e-03
                                                               8.28e-03 1.005
## 710
         -4.27e-03
                    -5.19e-03
                              8.99e-03
                                          -7.22e-03 -1.91e-02
                                                              2.93e-02 1.007
                                          -2.21e-04 -2.33e-03 -4.66e-03 1.006
## 711
         -1.34e-03
                    -1.09e-04 -1.17e-03
## 712
          1.34e-03
                     1.33e-03
                               3.33e-03
                                          6.12e-04 -1.27e-03 -7.26e-03 1.005
## 713
          2.11e-03
                    -1.85e-03
                              6.40e-03
                                          5.32e-03 -2.40e-02 5.18e-02 1.007
## 714
         -6.07e-04
                     1.41e-04
                               2.11e-03
                                          2.15e-03 2.20e-03 5.70e-03 1.011
## 715
                    -4.76e-03
                                          2.61e-03 -1.07e-02 -2.61e-02 1.006
          2.38e-03
                               9.65e-04
## 716
          9.29e-04
                    -2.41e-03
                               6.55e-03
                                          5.64e-03 9.69e-03 2.54e-02 1.004
## 717
          8.39e-04
                     1.57e-03 -2.61e-02
                                          -2.38e-02 -2.15e-02 -5.27e-02 1.007
## 718
         -4.99e-04
                    -9.05e-04
                               1.48e-03
                                          8.51e-03
                                                    1.09e-02
                                                              2.46e-02 1.002
## 719
         -2.84e-03
                     1.59e-03
                               2.20e-02
                                           1.42e-02
                                                    2.01e-02
                                                              4.33e-02 1.002
## 720
         -1.24e-03
                    -3.41e-04 8.55e-03
                                          -2.69e-03
                                                    5.84e-03
                                                              1.74e-02 1.006
## 721
         -7.73e-03
                     2.27e-02 -5.92e-04
                                                              5.46e-02 0.995
                                          9.14e-03
                                                    2.54e-02
## 722
         -1.72e-03
                     1.19e-02 -4.53e-04
                                          -1.55e-03
                                                    1.21e-02 4.31e-02 1.001
## 723
         -3.53e-05
                    -2.38e-05 -1.01e-04
                                          -1.20e-04 -6.03e-04 -1.40e-03 1.008
## 724
         -9.88e-06
                     2.69e-04 -3.01e-04
                                          -4.60e-05
                                                    1.50e-04
                                                              5.23e-04 1.006
## 725
          1.95e-03
                     2.17e-02 5.75e-03
                                          2.36e-02 -3.67e-02
                                                              6.90e-02 1.005
## 726
                    -1.87e-04 -2.67e-04
                                                    1.68e-04
         -6.64e-05
                                          9.84e-05
                                                              8.30e-04 1.005
## 727
          1.01e-02
                     2.58e-02
                              7.40e-02
                                          1.15e-01
                                                    2.47e-04
                                                               1.88e-01 1.008
## 728
         -5.35e-04
                    -2.96e-03
                              5.42e-03
                                          2.24e-03 -5.45e-03 9.14e-03 1.010
## 729
          5.44e-04
                    -1.45e-03
                               8.62e-04
                                          1.42e-03
                                                    1.03e-02 -1.31e-02 1.008
## 730
                     2.79e-03
                               9.53e-03
                                          -2.14e-04 5.82e-03 2.00e-02 1.007
         -3.18e-04
## 731
         -2.99e-03
                    -1.21e-02
                               1.26e-02
                                                    6.18e-03
                                                               2.48e-02 1.003
                                          6.51e-03
                                          -8.11e-03 -4.02e-03 -3.08e-02 1.004
## 732
          4.39e-04
                    -1.54e-02 -1.04e-02
                     1.48e-03 4.47e-03
## 733
         -1.70e-03
                                           3.37e-03 6.91e-03
                                                              1.76e-02 1.003
## 734
         -3.75e-04
                     1.78e-03 -7.93e-04
                                           5.68e-03 -3.25e-02 5.02e-02 1.007
## 735
          7.48e-04
                     3.76e-03 3.58e-03
                                          -2.10e-03
                                                    5.36e-03
                                                               1.91e-02 1.006
## 736
         -4.86e-04
                     4.33e-04 -6.92e-04
                                                    7.63e-04
                                                               2.01e-03 1.007
                                          4.92e-04
## 737
         -2.59e-03
                     6.88e-03 4.54e-03
                                          -2.43e-03
                                                    1.60e-02
                                                               4.05e-02 1.003
## 738
                    -7.18e-04
                               2.26e-03
                                                    5.94e-03
         -2.02e-03
                                          -1.06e-02
                                                               3.86e-02 0.997
## 739
         -2.11e-03
                    -3.49e-03
                               3.17e-03
                                           3.31e-03
                                                    1.81e-03
                                                               1.13e-02 1.004
## 740
         -1.78e-03
                     1.38e-03
                               3.17e-02
                                           9.24e-03 -5.53e-02
                                                               9.02e-02 1.006
## 741
         -1.21e-03
                     8.00e-03 4.61e-03
                                           3.35e-03 5.57e-03
                                                              1.63e-02 1.007
## 742
         -1.13e-02
                     1.31e-02 -1.05e-03
                                           1.10e-02 -1.76e-03
                                                              5.78e-02 1.002
                    -2.71e-02 -7.33e-03
## 743
                                          -1.66e-02 -4.62e-03 -5.55e-02 0.998
          1.04e-02
## 744
          1.89e-03
                    -1.55e-02 -1.25e-02
                                         -1.41e-02 -1.40e-02 -3.48e-02 1.007
## 745
         -1.19e-03
                     8.43e-04 1.61e-02
                                          1.23e-02 2.17e-02 4.27e-02 1.001
## 746
         -9.25e-03
                     4.26e-02 2.52e-03
                                          9.05e-03 2.45e-02 6.77e-02 0.997
```

```
## 747
          3.62e-03
                     9.61e-03 -1.52e-02
                                          1.01e-02 3.33e-02 -4.89e-02 1.007
          2.34e-03
                   -6.67e-02 -1.00e-02
                                                   9.00e-02 -1.48e-01 0.999
## 748
                                          1.66e-03
## 749
         5.39e-03
                     4.11e-02 -3.06e-03
                                          2.17e-02
                                                    4.68e-02 1.11e-01 0.983
                                                             1.96e-02 1.006
## 750
         -3.92e-03
                   -6.15e-03 -4.90e-03
                                         -3.33e-03 5.03e-03
## 751
         -3.84e-03
                    -1.60e-04 -2.81e-03
                                         -5.20e-03 -1.42e-02 -3.57e-02 1.004
         1.54e-04
                     1.14e-03 1.21e-03
                                                   3.09e-03 8.40e-03 1.005
## 752
                                          1.84e-03
                     2.91e-04 1.95e-04
## 753
          7.39e-05
                                          1.46e-04
                                                    4.56e-06
                                                             7.29e-04 1.005
                     3.20e-03 -2.84e-03
## 754
         -4.46e-03
                                          5.44e-04
                                                    2.47e-04
                                                             1.33e-02 1.005
## 755
         -8.72e-04
                    -1.28e-02 2.95e-02
                                         -6.94e-03 -7.05e-02
                                                             1.21e-01 1.002
## 756
         -7.49e-03
                     3.57e-02 -1.17e-02
                                          8.05e-03 3.04e-02 6.61e-02 0.990
## 757
          3.22e-04
                    -7.00e-04
                              2.03e-03
                                          9.03e-03 -2.95e-03 -1.32e-02 1.006
## 758
                    -8.93e-03 2.68e-03
                                          8.97e-03
         -3.86e-03
                                                   1.62e-02
                                                             4.55e-02 1.006
## 759
         -6.57e-03
                     2.77e-02 1.47e-02
                                          1.43e-02
                                                    1.05e-02 6.74e-02 0.991
                                          4.94e-03
## 760
          1.31e-03
                     3.70e-02 -4.45e-04
                                                    2.11e-02
                                                             7.28e-02 0.996
## 761
          6.55e-05
                    -1.01e-04 -2.20e-04
                                          5.64e-05
                                                    5.86e-04
                                                             1.40e-03 1.005
## 762
          1.99e-03
                    -6.08e-03 1.25e-03
                                         -7.74e-04
                                                    2.37e-03 -1.59e-02 1.004
                     1.11e-02 1.30e-02
                                                             3.88e-02 1.003
## 763
         -8.24e-03
                                          1.31e-02
                                                    4.79e-03
## 764
         -1.27e-02
                    -6.66e-03
                              4.36e-02
                                          1.64e-02
                                                    1.08e-02
                                                             5.58e-02 1.002
## 765
                     1.31e-03 -1.50e-02
          2.37e-03
                                         -3.60e-03
                                                    1.08e-02
                                                             3.63e-02 1.006
## 766
         -1.30e-03
                     1.24e-02 2.17e-03
                                          4.98e-04
                                                    1.45e-02
                                                             3.47e-02 1.005
## 767
         7.10e-04
                   -1.62e-02 -2.64e-03
                                         -1.06e-03
                                                   5.92e-02 -8.00e-02 1.003
## 768
                    -2.33e-02 2.45e-02
                                          3.69e-03
                                                    1.17e-02 4.21e-02 1.001
          4.39e-03
## 769
                    -1.68e-03 -3.08e-03
                                                   1.02e-03
                                                             5.68e-03 1.005
         -8.85e-04
                                         -1.33e-03
                                          2.99e-03 -8.67e-03
                                                              1.29e-02 1.008
## 770
         -5.82e-04
                     2.52e-03 3.22e-03
## 771
         -2.73e-03
                     1.88e-02 -5.52e-02
                                          1.51e-02 2.45e-02 8.88e-02 1.000
## 772
         -2.10e-03
                     6.29e-03
                              5.35e-03
                                          4.95e-03 9.13e-03
                                                             1.96e-02 1.006
## 773
         7.62e-03
                    -3.96e-02
                              3.06e-03
                                         -1.46e-02
                                                   1.04e-02 -5.37e-02 1.007
## 774
         -4.14e-04
                     4.49e-03
                              1.89e-03
                                          2.53e-03 -2.29e-03
                                                             1.20e-02 1.005
## 775
         -2.86e-02
                     2.10e-02 1.02e-01
                                          1.86e-02 6.27e-02
                                                             1.99e-01 0.964
## 776
         -1.33e-02
                     9.14e-03 1.70e-02
                                         -1.95e-02 -8.10e-03 5.76e-02 1.007
## 777
         -1.93e-03
                    -7.26e-03 2.02e-02
                                          3.63e-02 -8.79e-03 -5.03e-02 1.002
## 778
         -1.72e-04
                     1.36e-02 -8.22e-03
                                         -2.19e-02 1.38e-02 4.62e-02 1.004
## 779
         -4.28e-03
                     9.43e-03 -3.45e-04
                                          1.81e-03 -1.40e-03
                                                             2.50e-02 1.008
## 780
          3.37e-02
                     1.14e-01 2.42e-02
                                          3.91e-02 9.01e-04
                                                             1.75e-01 0.986
## 781
          2.85e-04
                    -9.19e-04
                              3.22e-04
                                         -2.50e-03 8.07e-04
                                                             6.90e-03 1.006
## 782
                    -1.21e-03 -2.08e-03
         -1.68e-04
                                          1.06e-03 5.13e-04 -6.62e-03 1.006
## 783
         -8.36e-02
                    -3.82e-03 -1.07e-01
                                          6.30e-02 -3.39e-02 -2.42e-01 0.988
## 784
          1.07e-02
                    -2.57e-03 -6.25e-03
                                          2.86e-02 -9.89e-03 -7.51e-02 1.001
## 785
          1.43e-02
                     4.60e-03 7.37e-04
                                         -8.48e-03 1.83e-03 2.90e-02 1.004
## 786
         -3.60e-03
                   -2.63e-02 3.37e-02
                                         -2.11e-02 1.57e-02 8.58e-02 1.004
                                         -2.41e-03 -1.82e-02 -4.84e-02 1.006
## 787
         -1.11e-02
                     1.05e-02 -1.41e-02
## 788
         -5.56e-05
                    -3.61e-04 -7.94e-05
                                          2.47e-05 5.57e-05 -1.79e-03 1.007
## 789
         -5.95e-03
                     5.34e-03 3.39e-04
                                          2.07e-03 -1.47e-03 -1.29e-02 1.006
## 790
         -4.73e-04
                     1.03e-02 -2.08e-02
                                         -1.63e-02 8.60e-04 2.84e-02 1.010
## 791
         -7.75e-03
                     1.39e-02 -2.56e-02
                                         -4.07e-02 9.35e-03 6.16e-02 1.000
## 792
         -1.41e-03
                    -8.68e-04 1.26e-03
                                         -9.42e-04 3.11e-03
                                                             6.79e-03 1.005
## 793
         -2.65e-03
                     7.01e-03 -3.79e-03
                                         -1.35e-02 -5.23e-03 3.12e-02 1.005
## 794
                     7.88e-03 1.99e-02
         -9.40e-03
                                         -5.03e-03 -1.45e-02 -6.05e-02 1.010
## 795
         -4.65e-04
                    -1.03e-02 -6.67e-03
                                         -9.40e-03 -5.42e-04 1.67e-02 1.010
## 796
         -5.29e-02
                     3.26e-02 1.11e-02
                                          4.91e-02 4.82e-02 -1.56e-01 1.013
## 797
         -5.05e-03
                     6.07e-03 -1.30e-02
                                         -1.72e-02 8.13e-03 3.41e-02 1.003
## 798
         -7.96e-04
                   -4.09e-03 1.40e-05
                                         -1.95e-03 -1.89e-02 3.31e-02 1.007
## 799
         3.14e-03
                     8.15e-03 -5.94e-03
                                          1.06e-03 6.93e-04 -2.35e-02 1.005
                   -1.70e-03 4.72e-04
                                          5.14e-05 2.63e-03 7.27e-03 1.009
## 800
         -1.29e-03
```

```
## 801
         -6.89e-04
                    -4.19e-04 -8.44e-06
                                        -5.32e-04 5.43e-04 1.99e-03 1.005
                                          1.62e-03 -1.12e-03 -2.76e-03 1.007
## 802
          9.19e-04
                     6.31e-04 -3.09e-04
## 803
         -1.31e-02
                    -1.04e-01 -5.39e-02
                                         -4.98e-02 -1.63e-03 -1.61e-01 0.980
## 804
         -9.10e-03
                     2.83e-03 8.37e-03
                                         -1.60e-02 -2.16e-02 3.73e-02 1.010
## 805
          2.38e-02
                     1.34e-02 -5.68e-02
                                         -2.04e-02 -6.71e-02 -1.28e-01 0.998
## 806
          7.84e-04
                     2.03e-04 2.54e-04
                                          1.58e-03 1.31e-03 -2.92e-03 1.009
## 807
          1.17e-03
                    -1.59e-03 7.41e-04
                                          7.41e-04 -4.41e-03 -8.83e-03 1.007
                                          4.53e-04 -1.52e-03 -1.04e-02 1.008
## 808
          2.54e-03
                     2.68e-03 2.10e-03
## 809
          8.70e-04
                     1.19e-03 -3.36e-03
                                         -2.08e-03 1.11e-04 -6.72e-03 1.014
## 810
         -1.97e-04
                     4.15e-04
                              1.96e-04
                                          1.18e-04 5.84e-04 2.15e-03 1.010
## 811
         -1.21e-03
                    -5.31e-03
                              1.11e-02
                                          4.77e-03 -1.85e-02 2.51e-02 1.008
                     2.25e-02
## 812
          5.25e-02
                              4.32e-04
                                          7.70e-02
                                                    1.27e-01 -2.14e-01 0.959
## 813
         -2.52e-03
                     5.91e-03
                              2.16e-02
                                          9.25e-03
                                                    2.39e-02 4.62e-02 1.001
## 814
                               2.72e-03
                                                              5.99e-03 1.006
         -1.64e-03
                    -4.62e-04
                                         -2.97e-04
                                                    1.67e-03
## 815
                    -2.26e-03
                                          1.38e-03
                                                              3.23e-02 1.009
         -3.48e-03
                               5.58e-03
                                                    6.71e-03
## 816
         -1.43e-03
                     1.14e-03
                               1.09e-02
                                          5.48e-03
                                                    9.38e-03
                                                              2.23e-02 1.008
## 817
         -1.54e-03
                    -1.24e-02
                               5.45e-04
                                         -9.43e-03
                                                    1.76e-03
                                                              2.34e-02 1.006
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## 822
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                    -5.76e-03 -2.21e-02
                                          5.40e-03 -2.92e-02 6.15e-02 1.008
## 823
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          3.02e-04
                                          4.89e-04
## 824
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## 825
          1.16e-02
                     1.07e-03 -1.83e-02
                                         -8.67e-03
                                                    3.11e-02 -7.08e-02 1.005
## 826
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                    -3.94e-03 1.74e-02
                                         -7.15e-03 2.70e-02 -5.66e-02 1.005
## 827
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          8.50e-05
## 828
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## 829
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                     3.54e-03 6.88e-05
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## 830
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## 831
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                                          2.89e-03 -3.41e-03 -1.01e-02 1.006
## 832
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          1.06e-03
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                    -2.51e-02
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                                          9.87e-03
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## 844
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                     3.55e-03 -1.55e-02
                                         -1.14e-02
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                                          1.51e-01
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         -7.82e-03
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## 848
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## 850
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## 851
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                                         -3.30e-03 5.69e-03 1.42e-02 1.006
## 852
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                    -7.78e-03 -5.91e-03
                                         -9.80e-03 -1.40e-02 -4.82e-02 1.005
## 853
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                     1.18e-02 4.37e-04
                                          3.46e-02 2.35e-02 -4.57e-02 1.014
## 854
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```

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## 858
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## 861
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## 863
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                                          4.45e-04
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## 864
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## 865
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                    -5.71e-05 -4.78e-04
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                     1.77e-04 2.33e-04
## 866
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## 867
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         -3.39e-03
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## 868
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## 872
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## 876
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## 877
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## 881
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         -5.27e-05
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## 885
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## 886
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                    -7.16e-03 3.78e-03
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## 887
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## 888
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## 889
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                     2.07e-02 -5.70e-03
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## 890
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          9.02e-04
## 891
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                                         -3.60e-03 -7.45e-04 -2.22e-02 1.005
## 892
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                                          3.35e-03 2.52e-04 6.17e-03 1.005
## 893
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                                          1.94e-03
                                                    4.83e-03
                                                              3.27e-02 1.004
         -3.25e-03
                                                    1.31e-05 5.19e-04 1.006
                    -6.01e-05 7.07e-05
## 894
         -4.99e-07
                                          7.50e-05
## 895
         -6.80e-03
                    -7.44e-02 1.78e-02
                                          2.76e-02
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## 896
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                                         -9.21e-03
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## 897
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                                         -1.93e-02 5.04e-04 -4.66e-02 1.005
## 898
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                    -1.99e-02 1.51e-02
                                         -1.78e-02 -3.93e-03 5.24e-02 1.004
## 899
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                    -2.86e-03 7.85e-03
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## 900
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          2.18e-02
## 901
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## 902
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         -4.84e-03
## 903
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## 904
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## 905
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          1.80e-02
## 906
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## 907
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                                         -6.28e-02 -5.48e-03 8.79e-02 1.004
## 908
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                     1.73e-02 -1.37e-02 -2.92e-02 -7.62e-03 5.64e-02 1.002
```

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## 909
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## 910
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## 911
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## 912
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## 915
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                    -9.26e-02 5.61e-02
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## 916
          7.18e-03
## 917
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## 918
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                   -7.15e-02 -7.65e-03
                                         -2.62e-02 2.86e-02 -1.29e-01 0.997
## 919
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## 920
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## 921
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## 922
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## 923
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          1.97e-02
## 924
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## 925
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                                          3.94e-02
## 926
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                   -2.51e-02 7.68e-03
                                          3.07e-03
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## 927
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                   -7.74e-03 2.68e-03
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## 928
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## 929
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          6.65e-02
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## 931
          8.41e-04
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## 932
          8.32e-03
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## 933
          1.48e-02
                   -3.63e-02 2.83e-03
                                          6.86e-03
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## 934
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                                         -1.67e-02
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## 935
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          2.51e-02
## 936
          1.93e-02
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## 937
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## 938
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                                          3.40e-02 3.93e-03 -1.04e-01 0.995
## 939
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                    -3.95e-02 4.35e-02
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## 940
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## 941
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## 942
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## 944
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## 945
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## 946
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## 947
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          6.55e-03
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## 948
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## 949
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## 951
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## 952
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## 953
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## 954
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         -3.52e-04
## 955
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                                         -4.89e-03
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## 956
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         -2.04e-03
## 957
                    -7.81e-03 1.14e-02
                                          2.44e-02
                                                   1.06e-02
                                                             4.80e-02 1.001
## 958
         -1.21e-02
                     4.33e-02 1.37e-02
                                         -3.98e-03
                                                    4.69e-03
                                                              7.65e-02 1.003
                     1.68e-03 -1.05e-02
## 959
         -4.60e-03
                                          3.28e-03
                                                    3.32e-03
                                                              3.07e-02 1.002
## 960
         -2.49e-03
                     4.38e-03 6.33e-04
                                          3.84e-03 2.33e-03
                                                             1.06e-02 1.005
## 961
         1.65e-03
                   -1.42e-02 -1.67e-04
                                         -1.41e-04 -4.16e-03 2.28e-02 1.013
## 962
         -9.79e-04
                    8.89e-04 3.67e-03
                                          2.24e-03 -7.64e-04 6.76e-03 1.006
```

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## 963
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## 964
         -3.64e-03
                    -1.24e-02 5.50e-02
## 965
         1.30e-04
                    -3.12e-03
                              8.86e-04
                                         -2.54e-03 6.85e-04 -5.92e-03 1.007
## 966
          1.22e-02
                   -1.11e-02
                              1.33e-02
                                         -8.51e-03 -2.76e-02 -7.57e-02 1.004
## 967
         -1.91e-03
                     9.22e-05 -2.84e-03
                                          1.12e-02 -2.27e-02 3.98e-02 1.009
## 968
         -6.13e-03
                     1.40e-02 1.08e-03
                                          8.13e-03 1.93e-02 3.79e-02 1.005
## 969
         -7.83e-04
                     6.80e-04 -5.81e-04
                                          5.28e-04 4.36e-04 2.84e-03 1.005
## 970
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                                         -4.70e-03 -4.19e-03 4.87e-02 1.003
## 971
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                     4.61e-04 -4.78e-03
                                         -2.69e-03 3.86e-03
                                                             1.34e-02 1.005
## 972
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                                         -4.87e-03 1.15e-02 1.37e-01 1.003
## 973
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                                          1.13e-04 -2.55e-04 -6.99e-04 1.007
## 974
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                                         -6.25e-05 3.11e-03 -1.51e-02 1.006
          1.09e-03
## 975
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                                         -2.64e-02 -2.13e-02 9.01e-02 0.992
## 976
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                    -6.84e-03 5.62e-03
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## 977
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                     1.22e-02 1.72e-02
                                          9.08e-03 -3.27e-03 4.14e-02 1.002
## 978
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                                          1.67e-03 -1.49e-03 -4.67e-03 1.006
## 979
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## 980
         -8.41e-03
                    -2.78e-03 5.22e-04
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## 981
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## 982
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                                          2.94e-04 4.68e-04 -5.16e-03 1.021
## 983
         -9.75e-03
                     2.15e-02 -6.42e-03
                                          1.08e-02 -9.24e-03 4.98e-02 1.004
## 984
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                                         -2.30e-02 -7.10e-03 -5.65e-02 1.000
          1.24e-02
                                          1.23e-02 -6.44e-03 3.43e-02 1.005
                     1.25e-02 7.33e-03
## 985
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## 986
          6.99e-04
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## 987
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                                         -8.61e-03 -1.16e-02 3.78e-02 1.002
## 988
         -1.27e-02
                   -3.22e-02 -1.35e-02
                                         -2.79e-02 -5.66e-04 5.85e-02 1.000
## 989
         -8.07e-03
                     1.32e-02 9.16e-05
                                         -1.00e-02 -6.23e-03 4.26e-02 1.001
## 990
         1.87e-03
                   -3.32e-02 1.72e-02
                                         -4.70e-03 2.29e-03 -4.37e-02 1.010
## 991
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                                         1.04e-02 -7.10e-02 1.00e-01 1.002
         -2.29e-03
## 992
          3.55e-03
                   -1.76e-03 -2.18e-03
                                          2.68e-03 2.21e-03 -1.26e-02 1.005
                    -3.71e-02 1.78e-03
## 993
          6.41e-03
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## 994
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                                         -2.74e-03 5.99e-03 2.04e-02 1.006
## 995
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                    -5.05e-03 2.90e-03
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## 996
         -3.95e-03
## 997
         -6.60e-02
                    -2.01e-02
                              2.62e-03
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                   -1.49e-03 -6.60e-04
                                         -6.53e-04 1.50e-03 4.81e-03 1.011
## 998
         2.92e-03
## 999
          7.86e-03
                     1.37e-04 9.20e-03
                                          1.37e-02 3.89e-03 2.00e-02 1.009
## 1000
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                   -8.25e-04 -1.33e-03
                                         -1.41e-03 1.67e-03 2.12e-02 1.019
## 1001
        -2.92e-02
                    -3.19e-02 -4.70e-03
                                         -6.53e-03 -2.44e-02 -7.36e-02 1.001
        -3.86e-02
                     1.04e-02 9.93e-03
                                         -8.23e-03 1.06e-02 -6.82e-02 1.003
## 1002
## 1003
                                         -1.81e-02 -1.30e-02 -5.61e-02 1.005
        -1.12e-02
                   -1.52e-02 8.21e-03
## 1004
        -1.49e-02
                     1.95e-02 7.45e-04
                                          4.62e-03 -7.94e-03 -3.65e-02 1.005
## 1005
         1.74e-02
                     4.67e-03 -2.60e-03
                                          4.73e-03 3.82e-03 2.24e-02 1.021
## 1006
          3.73e-03
                     6.27e-03 -2.27e-02
                                          5.83e-05 -2.23e-02 -5.39e-02 1.002
## 1007
        -4.88e-02
                     6.76e-02 5.15e-02
                                          8.33e-02 1.54e-02 -1.95e-01 1.000
## 1008
        -5.92e-03
                     1.15e-03 -1.43e-02
                                         -1.28e-02 3.55e-02 -6.54e-02 1.007
## 1009
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                    -8.39e-03 1.25e-02
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## 1010
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## 1011
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## 1012
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                     4.45e-03 -1.25e-03
                                         -2.20e-03 6.28e-05 2.55e-02 1.022
## 1013
         5.18e-03
## 1014
        -5.55e-04
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## 1015
        -3.00e-04
                     3.21e-04 1.84e-03
                                          8.25e-04 -2.87e-04 -3.89e-03 1.012
## 1016 -7.12e-03
                   -1.72e-03 3.77e-04 -9.50e-04 -6.34e-04 -9.17e-03 1.013
```

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## 1018
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                    -2.13e-02 6.03e-03
## 1019
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                     5.21e-03 -9.96e-04
                                          4.45e-03 4.07e-03 2.79e-02 1.012
## 1020
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                     4.81e-03 -5.17e-03
                                         -6.36e-03 6.01e-03 1.99e-02 1.003
## 1021
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                     8.86e-05 -1.63e-04
                                          9.20e-04 -1.59e-04 -8.89e-03 1.010
## 1022
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                    -2.53e-02 6.88e-03
                                         -1.44e-02 -1.05e-03 1.49e-01 1.065
## 1023
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                              2.29e-03
          8.54e-03
                                          4.48e-03 4.66e-03 2.99e-02 1.017
## 1024
        -7.03e-03
                    -1.08e-03
                              1.72e-02
                                          4.66e-03 -2.84e-04 -2.26e-02 1.005
## 1025
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                     4.91e-03
                               2.29e-03
                                         -1.59e-03 -2.46e-03 4.79e-02 1.039
## 1026
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                    -1.36e-03
                              1.84e-02
                                          2.92e-03 -2.63e-03 -4.43e-02 1.008
## 1027
        -1.66e-04
                     1.79e-02
                              7.09e-03
                                         -3.47e-03 -2.82e-03 1.20e-01 1.063
## 1028
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                     2.84e-03
                              1.94e-02
                   -7.12e-03 -1.46e-02
## 1029
          1.32e-03
                                         -1.57e-02 1.20e-03 2.93e-02 1.005
## 1030
        -3.25e-04
                    -2.28e-03 3.40e-03
                                          1.84e-03 9.03e-04 7.77e-03 1.011
## 1031
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                    -4.72e-04 -4.40e-04
                                         -1.13e-03 -1.52e-03 -3.04e-03 1.006
## 1032
          1.90e-03
                    -1.89e-04 -8.01e-03
                                          4.58e-04 1.22e-02 2.89e-02 1.006
                                          5.52e-03 -6.45e-04
## 1033
          1.37e-02
                     6.88e-03 8.02e-03
                                                              7.45e-02 1.013
## 1034
          4.39e-03
                    -1.83e-03 -9.86e-04
                                         -2.27e-04 -6.98e-04 5.78e-03 1.008
## 1035
                                         -2.80e-03 -2.14e-03 -2.15e-02 1.010
        -1.11e-02
                    -1.35e-03 -1.20e-05
## 1036
         4.60e-05
                    -4.37e-04 -4.01e-04
                                          2.60e-04 -1.88e-04 -4.10e-03 1.016
## 1037
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                     2.48e-03 -4.92e-03
                                          1.43e-03 -8.45e-03 -3.73e-02 1.004
## 1038
        -3.43e-03
                     4.80e-03 -2.99e-03
                                          6.49e-03 1.34e-02 -2.04e-02 1.010
## 1039
        -2.84e-02
                    -2.23e-02 -3.06e-03
                                         -1.80e-02 -3.12e-02 -7.93e-02 1.006
                                          6.89e-03 -5.87e-03 -6.69e-02 1.002
## 1040
        -1.87e-02
                     9.43e-04 2.34e-02
## 1041
        -7.95e-03
                    -6.11e-03 6.69e-03
                                          5.44e-03 2.51e-03 -2.65e-02 1.006
## 1042
          1.94e-03
                     2.20e-03 1.38e-04
                                         -9.22e-03
                                                   5.52e-03 -2.59e-02 1.011
## 1043
          8.79e-03
                     1.43e-03 -2.52e-03
                                          4.22e-03
                                                    3.05e-03 2.78e-02 1.014
## 1044
         9.99e-03
                     4.08e-03 1.34e-03
                                          4.40e-03
                                                    4.94e-03 2.32e-02 1.010
## 1045
                                                   1.05e-03 -8.75e-03 1.006
        -1.11e-03
                     3.19e-03 -2.43e-03
                                          2.49e-03
## 1046
        -2.84e-03
                     2.66e-03 6.45e-03
                                         -2.85e-04 -4.39e-03 -1.84e-02 1.007
                     1.38e-02 -5.77e-03
                                          1.04e-03 7.09e-03 -4.19e-02 1.003
## 1047
         -1.01e-02
## 1048
        -7.35e-02
                    -1.86e-02 2.22e-02
                                          7.30e-02 -2.11e-02 -1.67e-01 0.978
## 1049
        -8.57e-03
                     7.88e-03 -1.69e-02
                                         -2.24e-03 2.57e-02 7.22e-02 1.001
## 1050
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                                         -8.98e-03 -8.89e-03 -1.97e-02 1.016
          1.41e-03
## 1051
         -2.85e-03
                     2.00e-02
                              3.01e-02
                                         -8.96e-03 5.38e-03 -7.06e-02 1.000
## 1052
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                                          3.34e-03 -1.33e-02 3.47e-02 1.006
        -3.77e-03
## 1053
        -1.42e-03
                    -1.57e-03 6.63e-04
                                         -2.09e-04 -1.56e-03 -3.49e-03 1.007
## 1054
          6.39e-03
                     1.54e-02 -1.06e-02
                                          6.50e-03 -9.29e-04 -4.38e-02 1.001
## 1055
          3.30e-02
                     2.40e-02 2.68e-02
                                          6.09e-02 3.86e-03 -1.06e-01 0.996
## 1056
        -1.09e-03
                     2.67e-02 -1.87e-02
                                         -7.84e-03
                                                   9.58e-03 -5.42e-02 1.001
                                                    6.56e-02 -9.84e-02 1.002
## 1057
        -9.48e-03
                    -8.68e-03 4.81e-03
                                          6.02e-03
## 1058
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                                          4.24e-02
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## 1059
        -1.76e-01
                                         -2.83e-01
                                                   2.36e-02 -6.96e-01 0.944
## 1060
          6.41e-04
                    -2.25e-02 3.47e-02
                                          3.83e-02 -1.45e-02 -9.45e-02 1.010
## 1061
          2.22e-03
                     4.50e-03 -1.64e-03
                                          1.16e-02 -4.22e-03 -2.88e-02 1.006
                                          2.00e-03 3.70e-04 -1.28e-02 1.010
## 1062
        -2.73e-03
                     1.09e-02 5.47e-05
## 1063
        -1.64e-03
                    -1.06e-03 -3.08e-03
                                         -2.58e-04
                                                    3.13e-04 7.76e-03 1.013
                                                    1.68e-03 1.90e-02 1.005
## 1064
        -2.85e-03
                     6.64e-03 4.17e-03
                                          8.64e-03
## 1065
         8.31e-03
                    -3.10e-02 1.60e-03
                                         -1.56e-02
                                                    1.85e-02 -5.96e-02 1.005
## 1066
        -4.70e-02
                     5.92e-02 -8.19e-03
                                          5.45e-02
                                                    4.93e-02 -1.84e-01 0.976
                    -1.07e-02 3.84e-03
                                                    2.84e-03 -1.65e-02 1.008
## 1067
          2.12e-03
                                          4.00e-05
## 1068
        -7.64e-03
                   -2.18e-03 4.88e-03
                                         -5.18e-03 5.39e-03 -3.64e-02 1.003
## 1069
        -5.70e-03
                     2.91e-03 -3.89e-02
                                         -3.03e-02 -1.73e-02 -5.28e-02 1.001
## 1070
        -1.38e-02
                     1.87e-03 4.61e-03
                                          7.20e-02 1.51e-02 -1.04e-01 1.001
```

```
## 1071
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                     1.41e-02 -1.12e-02
                                          1.81e-02
                                                   5.04e-03 -5.68e-02 1.004
## 1072
          5.63e-03
          2.98e-02
## 1073
                     8.30e-02 3.27e-02
                                          2.03e-02
                                                    4.20e-03 -1.56e-01 1.002
## 1074
        -4.93e-02
                     6.20e-02 3.63e-02
                                          5.04e-02
                                                    1.03e-01 -2.00e-01 0.994
## 1075
          1.04e-03
                     1.96e-02 -9.26e-04
                                         -4.44e-05
                                                    1.24e-02 -3.78e-02 1.002
## 1076
        -3.66e-02
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                                         -5.53e-02 4.37e-03 1.63e-01 0.982
                     3.19e-03 -2.32e-03
                                          1.09e-03 -4.53e-04 -7.70e-03 1.005
## 1077
          9.06e-04
## 1078
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                                         -1.97e-03 7.98e-04 1.31e-02 1.007
          8.31e-03
## 1079
          2.72e-03
                     2.12e-02 3.80e-02
                                          3.38e-02
                                                    1.18e-02 -6.68e-02 1.000
## 1080
          6.55e-04
                     7.39e-03 1.98e-02
                                         -4.39e-03 4.10e-03 -4.24e-02 1.004
## 1081
          1.36e-02
                    -1.60e-05 -9.91e-03
                                         -6.75e-04 4.25e-03 2.25e-02 1.006
## 1082
                     7.51e-03 -4.26e-02
                                         -5.16e-02 -1.21e-02 -7.15e-02 1.005
          6.62e-03
## 1083
          9.59e-03
                     9.58e-03 8.31e-03
                                          1.00e-02 -6.73e-03 -3.63e-02 1.003
## 1084
                     1.06e-02 6.12e-03
          5.11e-04
                                          4.67e-03 -1.36e-03 -2.67e-02 1.003
## 1085
         -3.68e-03
                     3.20e-03 -3.15e-03
                                         -1.62e-03 8.90e-03 1.67e-02 1.003
## 1086
          3.97e-03
                     1.25e-02 -1.64e-02
                                          2.67e-03 3.19e-03 -2.42e-02 1.008
                                          5.33e-02 -1.39e-02 -8.40e-02 0.994
## 1087
          1.41e-02
                     2.93e-02 -1.85e-02
## 1088
        -1.97e-03
                     6.48e-03 -1.41e-02
                                          1.00e-02 -6.07e-03 -4.33e-02 1.003
## 1089
        -8.45e-04
                                         -5.61e-03 8.63e-04 -1.98e-02 1.006
                     5.74e-03 -1.45e-02
## 1090
        -1.73e-02
                    -5.17e-03 2.41e-02
                                          8.51e-05
                                                    6.36e-02 -9.77e-02 0.999
## 1091
          1.81e-02
                     6.47e-03 1.50e-02
                                          1.34e-02
                                                    2.55e-03 -1.10e-01 0.999
## 1092
          4.87e-03
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                                                    4.28e-03 -5.07e-02 1.002
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## 1093
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          1.84e-02
                                          1.24e-02
                     3.66e-01 -2.31e-02
                                                    7.47e-02 -4.51e-01 0.959
## 1094
          2.67e-02
                                          7.12e-02
## 1095
        -5.56e-03
                     6.02e-03 -2.28e-03
                                         -6.15e-03
                                                    1.13e-03 -1.30e-02 1.006
## 1096
        -2.29e-03
                    -1.16e-03 1.49e-02
                                          3.73e-03
                                                    3.73e-03 -2.30e-02 1.006
## 1097
         -2.56e-02
                     7.67e-03 -4.49e-03
                                         -1.40e-02
                                                    4.19e-03 -3.37e-02 1.008
## 1098
        -1.18e-03
                     1.44e-02 -3.05e-03
                                         -9.28e-03
                                                    1.15e-03 -2.16e-02 1.006
## 1099
                    -1.20e-02 6.35e-03
                                                   2.68e-03 2.70e-02 1.008
          1.54e-02
                                          1.76e-02
## 1100
        -1.85e-03
                    -8.74e-03 -1.62e-02
                                          1.39e-02 5.04e-04 4.02e-02 1.008
                    -6.74e-05 1.02e-04
## 1101
         -7.20e-05
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## 1102
        -1.47e-02
                     7.44e-02 -7.93e-03
                                          1.71e-02 3.88e-02 -1.45e-01 0.994
## 1103
         3.30e-04
                    -6.08e-05 1.31e-04
                                         -7.71e-04
                                                    8.83e-04 -4.35e-03 1.009
## 1104
                    -2.66e-04 -5.10e-05
                                         -2.54e-03
                                                    1.34e-03 -6.32e-03 1.006
        -1.52e-03
## 1105
          2.82e-03
                    -5.58e-03
                              5.65e-04
                                          3.20e-03
                                                    1.29e-03
                                                             9.89e-03 1.013
## 1106
                                          3.08e-03 -5.38e-04 5.01e-03 1.006
          1.12e-03
                    -1.23e-03 9.76e-04
## 1107
          7.10e-04
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                                          1.51e-03 2.75e-03 1.04e-02 1.010
## 1108
          9.46e-03
                     1.67e-02 -5.41e-02
                                         -2.55e-02 -1.37e-02 -7.97e-02 0.999
## 1109
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                     5.13e-03
                              5.80e-03
                                          8.85e-03 -9.35e-04 1.71e-02 1.005
        -2.56e-03
                              2.37e-02
                                          1.65e-02 -7.59e-03 -4.45e-02 1.005
## 1110
                     1.68e-03
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## 1111
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                    -7.19e-04
                               5.33e-04
## 1112
          1.29e-03
                     2.33e-03
                               5.44e-03
                                          6.43e-03 7.05e-03 1.90e-02 1.007
## 1113
        -3.14e-03
                    -5.41e-03
                              1.36e-02
                                          8.64e-03 1.85e-03
                                                             1.69e-02 1.009
        -4.04e-03
                     3.11e-03 1.09e-02
                                          1.99e-02 -2.23e-03
                                                             4.21e-02 1.007
## 1114
## 1115
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## 1117
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                     4.66e-04 8.92e-05
                                         -2.41e-03 -3.58e-03 -8.70e-03 1.004
## 1118
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                    -2.05e-03 5.74e-03
                                          4.50e-03
                                                   1.36e-03 1.11e-02 1.006
## 1119
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                                          7.10e-03
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## 1120
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                     3.97e-03 -5.01e-03
                                          2.19e-02
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                    -2.37e-04 2.00e-03
                                         -2.04e-03 -8.74e-04 -2.16e-02 1.003
## 1121
        -1.21e-03
## 1122
         2.52e-05
                    -2.64e-04 2.10e-04
                                          3.68e-05 -3.34e-04 -1.65e-03 1.008
## 1123
        -2.25e-04
                     1.88e-03 -1.97e-03
                                          1.94e-04 4.63e-04 -4.70e-03 1.005
## 1124
         5.16e-04
                     2.62e-03 -8.02e-03
                                        -7.77e-03 3.08e-03 -1.49e-02 1.005
```

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                                          1.89e-03 1.10e-02 5.18e-02 1.003
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## 1126
         9.41e-04
                     5.99e-03 -1.14e-02
## 1127
         -6.47e-06
                     3.99e-07 6.72e-06
                                         -1.94e-05 9.25e-06 -4.48e-05 1.005
## 1128
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                                         -7.73e-04 -1.52e-05 -2.59e-03 1.005
## 1129
        -9.28e-06
                    -3.88e-03 3.01e-03
                                          3.37e-03 4.65e-04 8.20e-03 1.005
                   -6.13e-03 -5.15e-03
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## 1130
         2.63e-03
## 1131
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                                         -1.28e-03 1.62e-03 -1.33e-02 1.006
                                          2.32e-04 -2.39e-04 2.21e-03 1.005
## 1132
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                     4.18e-06 3.90e-04
## 1133
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## 1134
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## 1135
         2.74e-05
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                                         -2.05e-04 4.55e-05 -4.08e-04 1.005
## 1136
                                                    7.05e-03 -4.08e-02 1.003
         9.37e-03
                     3.49e-03 -1.30e-02
                                         -6.14e-03
## 1137
         1.49e-03
                   -4.31e-03 -1.76e-03
                                          2.76e-03
                                                    7.53e-04 1.21e-02 1.005
## 1138
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                                                   5.04e-03 7.62e-02 0.998
         8.14e-03
                   -1.87e-02 5.16e-02
## 1139
                     3.16e-03 1.79e-02
                                         -7.87e-03
                                                    1.60e-02 4.87e-02 1.017
        -1.72e-02
## 1140
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                    -1.12e-04 2.46e-05
                                          5.32e-05
                                                   5.09e-05
                                                             1.92e-04 1.008
                                         -1.38e-03 -1.60e-04 -4.83e-03 1.005
## 1141
         2.96e-04
                     2.20e-03 -3.47e-03
## 1142
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                                          4.05e-03 -7.20e-04 1.08e-02 1.005
## 1143
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                   -8.23e-04 -3.95e-05
## 1144
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## 1145
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                   -1.64e-03 7.41e-04
                                         -1.19e-03 1.72e-03 -5.10e-03 1.006
## 1146
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                     1.06e-03 1.14e-03
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## 1147
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                   -1.32e-02 1.69e-02
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## 1148
        -7.48e-03
## 1149
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## 1150
        -4.88e-04
                     4.07e-03 -6.32e-03
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## 1151
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                     8.79e-03 -1.11e-02
                                         -1.19e-02 1.13e-03 -2.93e-02 1.003
## 1152
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                                          1.49e-03
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## 1153
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                                          6.04e-03 5.32e-04
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        -4.08e-05
## 1154
         4.20e-04
                    -2.15e-03 4.08e-03
                                          1.98e-03 2.62e-03 9.87e-03 1.006
## 1155
        -2.56e-02
                    -1.30e-03
                              7.72e-03
                                          3.22e-02 -3.14e-02
                                                             1.17e-01 0.999
## 1156
        -2.68e-03
                   -7.69e-03 7.90e-03
                                          6.99e-03 -2.19e-03
                                                             1.79e-02 1.005
## 1157
         1.48e-03
                     5.32e-03 7.95e-03
                                          9.14e-03
                                                   1.28e-02 4.08e-02 1.004
## 1158
          1.60e-03
                     1.73e-03 -4.75e-03
                                         -2.60e-03
                                                   8.38e-04 -1.13e-02 1.005
## 1159
         8.24e-04
                     1.53e-03 -3.20e-03
                                         -2.07e-03
                                                    2.22e-03 -1.01e-02 1.006
## 1160
                                         -1.46e-02 4.80e-03 -6.01e-02 0.994
         8.62e-03
                     2.27e-02 -2.79e-02
## 1161
        -6.80e-03
                     4.37e-03 -5.75e-03
                                         -6.95e-03 1.32e-03 -1.55e-02 1.005
## 1162
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        -1.12e-02
                    -1.11e-02 2.96e-02
                                          7.23e-03 -1.04e-02 -7.53e-02 1.005
## 1163
                                          1.46e-03 -5.00e-04 1.15e-02 1.005
## 1164
         2.67e-03
                   -8.26e-04 -3.94e-03
## 1165
                                          1.06e-02 6.64e-03 5.36e-02 0.999
         2.21e-03
                   -6.99e-03 1.95e-02
## 1166
         1.55e-03
                   -5.14e-03 -2.69e-03
                                         -9.27e-03 9.38e-03 -2.67e-02 1.005
## 1167
         1.21e-04
                   -4.46e-03 2.42e-03
                                         -3.13e-03 4.02e-03 -1.25e-02 1.006
## 1168
         6.03e-04
                   -7.23e-03 1.22e-02
                                          8.02e-03 -2.88e-03 2.07e-02 1.005
## 1169
         8.07e-04
                     8.41e-04 5.07e-03
                                          3.61e-03 1.55e-03 9.83e-03 1.005
                                          1.23e-04 -1.08e-04 7.41e-04 1.006
## 1170
        -2.78e-05
                   -3.53e-04 -1.07e-04
## 1171
         1.87e-04
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                                         -1.35e-02 2.99e-03 -2.67e-02 1.003
## 1172
        -2.92e-04
                     4.17e-02 3.63e-02
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## 1173
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## 1174
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## 1175
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         2.90e-03
## 1176
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                   -9.78e-03 2.70e-02
                                          2.70e-03 -1.33e-02 5.22e-02 0.998
## 1177
        -1.68e-02
                     1.30e-02 8.99e-03
                                          8.06e-03 -6.84e-03 6.69e-02 1.005
                   -1.59e-04 -1.12e-04 -4.53e-04 7.22e-06 6.95e-04 1.006
## 1178
        -2.19e-04
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## 1179
        -5.99e-04
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                                          9.20e-03 7.75e-04 -1.47e-02 1.012
## 1180
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                     1.99e-03 1.06e-02
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                                                   9.28e-03 -7.03e-02 1.005
## 1181
         -3.38e-03
                                         -2.11e-02
## 1182
        -3.27e-03
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                                         -7.60e-04
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## 1183
          8.59e-03
                    -1.84e-03 -2.36e-02
                                         -1.45e-02
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                     7.45e-03 -1.56e-03
                                                   2.42e-03 -1.10e-02 1.007
## 1184
          1.66e-03
                                          4.35e-03
## 1185
        -2.94e-03
                    -3.69e-03 4.30e-03
                                         -4.43e-03
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## 1186
          9.47e-04
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                                          3.76e-03
                                                   1.11e-03 -8.60e-03 1.005
## 1187
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                                          3.62e-02 -2.24e-05 -7.30e-02 1.002
## 1188
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                                         -2.17e-03 -1.33e-03 6.26e-03 1.005
## 1189
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                    -1.62e-02 4.12e-03
                                          8.84e-03
                                                   1.24e-02 -5.34e-02 1.005
## 1190
                     1.21e-02 -9.89e-03
                                                    1.10e-02 -4.32e-02 1.003
          8.09e-03
                                          3.00e-03
## 1191
          1.57e-03
                     1.12e-02 1.35e-02
                                          1.81e-02
                                                   8.03e-03 -3.07e-02 1.007
                                          2.31e-03
## 1192
          1.26e-02
                     6.40e-03 -1.40e-02
                                                    1.03e-02 -5.36e-02 1.004
## 1193
         -1.42e-03
                     3.49e-03 -6.33e-03
                                          2.26e-04
                                                    1.36e-04 -7.99e-03 1.008
## 1194
         -7.84e-03
                    -1.24e-02
                              1.65e-02
                                          6.27e-03
                                                   6.66e-04 3.02e-02 1.003
                                          1.45e-02 -3.43e-02 -9.22e-02 1.000
## 1195
          1.91e-02
                    -5.92e-02 3.42e-02
## 1196
        -2.27e-02
                     1.48e-02 2.03e-02
                                         -1.63e-02 1.20e-02 6.68e-02 0.997
## 1197
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          2.68e-03
                    -2.71e-03 -2.75e-04
## 1198
        -2.00e-03
                    -1.06e-03
                              3.48e-03
                                         -5.68e-04 -9.61e-03 1.60e-02 1.009
## 1199
          9.01e-04
                     1.12e-03 2.87e-03
                                          4.52e-03 -2.08e-03 -6.48e-03 1.006
## 1200
        -8.97e-03
                    -1.48e-02 -3.64e-03
                                         -2.04e-02 5.91e-03 3.39e-02 1.005
## 1201
                     1.14e-02 1.65e-02
                                          7.74e-03 -2.46e-02 -9.07e-02 1.007
          1.89e-02
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## 1202
          5.38e-03
                    -4.62e-04
                              3.53e-03
## 1203
          7.18e-03
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## 1204
        -3.00e-02
                     4.95e-02 6.47e-03
                                          3.92e-03
                                                    1.45e-01 2.44e-01 1.002
## 1205
         -1.61e-03
                     3.56e-03 -5.80e-03
                                         -3.40e-03
                                                    2.41e-03
                                                             1.17e-02 1.005
## 1206
        -3.96e-03
                    -1.73e-03 -3.70e-03
                                         -9.30e-03
                                                    1.70e-03
                                                              1.55e-02 1.005
## 1207
                                                    3.07e-03 7.87e-03 1.009
        -1.56e-03
                     2.35e-03 -1.70e-04
                                          7.75e-04
## 1208
         1.78e-02
                     1.69e-02 1.04e-02
                                         -2.06e-02 1.42e-02 -1.20e-01 1.007
                                         -8.12e-04 -6.52e-03 1.69e-02 1.009
## 1209
        -2.79e-03
                    -2.00e-03
                              5.95e-04
## 1210
          5.22e-03
                    -6.30e-03
                              4.76e-03
                                          8.21e-04 -9.85e-03 -1.90e-02 1.006
## 1211
          2.35e-02
                     1.90e-02
                              6.34e-03
                                          3.82e-03 4.46e-02 -9.75e-02 1.004
## 1212
                     1.49e-03
                                         -8.22e-03 -1.08e-02 -3.42e-02 1.009
          4.50e-03
                              1.38e-02
## 1213
          4.07e-03
                    -2.76e-03
                              8.06e-03
                                          5.76e-03 1.66e-04 -1.41e-02 1.006
## 1214
                     1.10e-02 -3.54e-03
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          1.59e-02
## 1215
        -1.23e-03
                     2.89e-03 1.01e-05
                                         -1.09e-03 2.90e-03 6.48e-03 1.007
## 1216
        -2.50e-02
                     9.30e-03 1.30e-02
                                         -1.49e-02 -4.84e-02 8.51e-02 1.003
## 1217
         -1.88e-02
                     1.72e-02 -1.50e-02
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                    -8.66e-04 -1.74e-03
## 1218
        -1.75e-03
## 1219
        -1.48e-02
                     8.48e-03 -1.39e-03
                                         -6.20e-03 1.88e-02 4.10e-02 1.002
## 1220
          3.89e-04
                    -3.40e-04 7.60e-04
                                          2.12e-04 -6.57e-04 -1.54e-03 1.007
## 1221
        -4.37e-02
                     1.08e-01 -1.06e-01
                                          5.08e-02 4.92e-03 3.60e-01 0.869
## 1222
          4.84e-04
                    -1.25e-03 5.22e-04
                                          2.40e-04 1.50e-03 -3.15e-03 1.008
## 1223
        -1.43e-02
                     7.67e-03 -3.62e-02
                                         -2.98e-02 3.48e-02 1.02e-01 0.998
## 1224
                    -1.71e-02 1.46e-02
                                          7.77e-03 -1.94e-02 -4.72e-02 1.001
          1.14e-02
## 1225
          5.13e-03
                    -3.14e-03 -1.28e-02
                                         -1.07e-02 2.10e-02 -3.84e-02 1.008
## 1226
        -3.42e-03
                    -2.60e-04 -2.87e-03
                                         -2.79e-03 2.67e-03 8.20e-03 1.007
## 1227
          2.22e-03
                    -2.51e-03 2.79e-03
                                          1.04e-03 -3.51e-03 -7.15e-03 1.006
## 1228
          6.95e-04
                    -4.40e-04
                              6.34e-04
                                          2.92e-04 8.48e-04 -2.81e-03 1.012
## 1229
                     1.59e-02 7.32e-02
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          2.39e-02
                                         -2.47e-02
## 1230
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        -4.78e-03
## 1231
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                                         -2.20e-02 9.74e-03 3.68e-02 1.005
## 1232
         4.23e-03
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```

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                                         -7.03e-04 1.76e-04 1.05e-03 1.006
## 1234
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         -5.68e-03
                     2.74e-03 -5.78e-03
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                    -8.46e-03
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          4.38e-03
## 1239
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                                          5.71e-03
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## 1244
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## 1245
        -1.71e-02
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## 1247
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## 1254
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## 1256
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## 1257
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## 1258
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## 1259
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                     2.83e-03
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## 1263
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## 1264
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## 1265
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                                                              6.66e-03 1.006
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## 1272
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## 1274
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## 1275
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## 1276
## 1277
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## 1278
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                                          1.65e-02
## 1279
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                                         -3.83e-03
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## 1280
          1.00e-02
                    -1.63e-02 7.05e-03
                                          4.08e-03
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## 1281
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                                         -5.56e-02
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## 1282
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                                          3.82e-05
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## 1283
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        -6.53e-03
## 1284
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## 1285
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## 1286
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## 1288
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## 1289
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## 1290
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## 1291
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## 1292
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## 1294
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## 1297
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                     5.26e-02
                              2.94e-02
                                          1.71e-02 -1.89e-02 2.28e-01 1.006
## 1298
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          6.39e-03
## 1299
         4.92e-02
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## 1300
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## 1301
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## 1303
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## 1304
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                    -4.71e-02 -6.92e-02
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## 1305
                   -3.30e-02 -1.43e-02
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         1.47e-02
## 1306
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## 1307
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## 1308
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         1.34e-03
## 1309
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                     1.12e-01 -1.68e-02
## 1310
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## 1311
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                                          1.74e-02 9.68e-03 -6.64e-02 0.986
## 1312
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                                          1.88e-02 3.14e-04 -5.69e-02 1.004
## 1313
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         2.60e-03
## 1314
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## 1315
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                                          9.83e-03 8.05e-04 -2.42e-02 1.004
## 1316
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## 1317
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                     3.43e-02 -1.04e-02
                                         -9.87e-03
                                                    1.80e-02 -7.20e-02 0.991
## 1318
         1.51e-03
                    -9.50e-03 -7.98e-03
                                         -4.18e-03 2.07e-03 2.17e-02 1.006
## 1319
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                                          2.30e-04 -4.22e-04 1.66e-03 1.006
## 1320
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         1.49e-03
                    -2.13e-02
                              2.93e-02
                                         -4.61e-03
## 1321
         1.32e-03
                    -2.97e-03 5.65e-03
                                         -4.78e-03
                                                   2.52e-03 -2.77e-02 1.003
## 1322
                                         7.31e-03 -1.32e-03 1.99e-02 1.008
         9.23e-03
                     4.26e-03 1.11e-02
## 1323
         5.04e-03
                   -1.44e-03 -5.99e-03
                                         -1.12e-02 8.18e-03 -3.29e-02 1.002
## 1324
          4.85e-03
                     4.69e-03 -1.91e-02
                                         -1.76e-02
                                                   4.25e-03 -4.08e-02 1.002
## 1325
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                    -1.56e-02 -1.30e-03
                                         -3.50e-03
                                                    1.13e-02 3.66e-02 0.999
                                                    3.46e-03 4.57e-02 1.001
## 1326
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                     1.95e-02 8.35e-04
                                          6.03e-03
        -1.28e-02
## 1327
                     8.60e-03 -1.74e-02
                                         -7.19e-03
                                                    3.26e-03 -2.61e-02 1.007
## 1328
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                     7.70e-04 -1.86e-02
                                         -2.06e-02
                                                   7.83e-03 -4.77e-02 1.002
## 1329
        -1.80e-03
                     6.50e-03 -2.20e-02
                                         -2.43e-03
                                                   6.23e-03 3.09e-02 1.005
## 1330
        -1.33e-02
                    -5.34e-03 -2.46e-02
                                         -3.70e-02 7.76e-03 -8.56e-02 0.991
## 1331
        -6.09e-03
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        -1.29e-03
## 1332
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## 1333
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                                          2.99e-04 -1.13e-04 -3.27e-03 1.006
## 1334
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          1.91e-03
## 1335
                   -1.57e-02 3.51e-03
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## 1336
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                                          1.75e-03 -2.31e-04 4.23e-03 1.005
## 1337
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         4.02e-03
## 1338
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## 1339
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```

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## 1342
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          1.88e-03
          7.36e-03
## 1343
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## 1344
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                                         -6.83e-04 1.07e-03 -1.42e-02 1.004
## 1345
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## 1346
## 1347
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## 1348
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## 1349
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## 1352
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## 1353
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## 1354
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## 1355
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                              3.74e-02
## 1356
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                    -2.93e-02
                              1.02e-02
                                         -2.53e-02 6.63e-03 -1.13e-01 1.009
                                          1.62e-03 5.91e-03 -6.20e-02 1.011
## 1357
         -3.05e-02
                    -3.58e-02 -5.35e-03
## 1358
          8.53e-04
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## 1359
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        -3.85e-05
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## 1360
          2.41e-03
                     3.02e-02 -5.22e-02
                                         -1.17e-02 -2.36e-03 7.94e-02 1.005
## 1361
          3.93e-03
                   -1.49e-02 6.11e-04
                                         -9.87e-03 5.68e-03 -3.41e-02 1.002
## 1362
        -1.06e-03
                     1.98e-03 -2.46e-03
                                         -1.17e-03 -1.82e-04 6.27e-03 1.005
## 1363
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                     7.47e-03 -1.65e-02
                                         -1.26e-03 -2.09e-03 1.27e-02 1.006
## 1364
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## 1365
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                     6.05e-03 4.31e-04
## 1366
        -1.71e-02
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## 1367
                    -4.00e-02
                              1.78e-02
                                         -1.97e-02 3.25e-02
                                                              8.53e-02 0.998
          1.84e-02
## 1368
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## 1369
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## 1370
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## 1371
         -3.88e-03
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## 1372
          1.11e-03
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## 1373
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                     6.44e-03 -4.38e-03
                                         -5.57e-03 -3.97e-02 6.41e-02 1.008
## 1374
                     8.38e-04 -1.15e-03
                                         -8.51e-04 1.26e-03 -3.93e-03 1.010
         -8.12e-05
## 1375
         -1.03e-03
                     1.31e-03 1.36e-03
                                          1.06e-03 -2.21e-03 7.09e-03 1.006
                     9.39e-03 -1.04e-02
                                         -4.79e-03 -1.21e-02 -3.25e-02 1.002
## 1376
        -5.37e-03
## 1377
         -4.76e-04
                    -3.70e-03 -9.12e-04
                                         -4.85e-03 -1.02e-02 -2.24e-02 1.006
## 1378
          9.90e-04
                    -5.34e-04 3.51e-03
                                         -1.44e-03 -3.08e-03 -1.04e-02 1.005
## 1379
          6.73e-03
                    -1.26e-03
                              8.10e-03
                                          6.12e-03 5.31e-03 3.77e-02 1.009
          6.60e-04
## 1380
                                          1.09e-03 -6.74e-03 2.01e-02 1.010
                    -7.78e-04
                              1.10e-03
## 1381
         -1.61e-04
                     1.78e-03 5.38e-04
                                          5.25e-04
                                                    1.10e-03 3.41e-03 1.007
## 1382
         -1.37e-03
                    -5.43e-03 -1.53e-02
                                         -1.58e-02
                                                    2.97e-03 -4.53e-02 1.002
## 1383
        -2.57e-03
                    -7.69e-04 1.25e-02
                                          3.47e-03
                                                   8.54e-03
                                                              2.37e-02 1.005
## 1384
        -1.37e-03
                    -7.76e-03 2.28e-02
                                          6.73e-03
                                                    1.14e-02
                                                              4.13e-02 1.003
## 1385
        -2.37e-03
                    -2.92e-03 -2.10e-02
                                         -4.71e-03 5.69e-03
                                                              3.28e-02 1.007
## 1386
                    -1.37e-02 -5.78e-03
                                         -5.89e-03 -3.11e-03
                                                              2.80e-02 1.005
         -1.14e-03
## 1387
         -2.55e-03
                     8.76e-03 -7.90e-03
                                         -1.25e-02 6.73e-03
                                                              3.28e-02 1.004
## 1388
          1.07e-03
                    -8.07e-03 1.21e-02
                                          1.35e-03 2.91e-03
                                                              1.86e-02 1.010
          7.00e-04
## 1389
                     1.21e-02 -1.68e-02
                                         -1.29e-02 -4.11e-02
                                                              6.53e-02 1.007
## 1390
          3.13e-04
                     9.70e-02 -8.74e-02
                                         -3.18e-02 -6.41e-02
                                                              2.01e-01 0.993
## 1391
                    -8.07e-03 -1.17e-02
                                         -1.25e-02 -9.10e-03 -3.92e-02 1.007
          8.02e-03
## 1392
        -2.00e-03
                    -4.47e-03 1.19e-03
                                         -3.23e-03 3.73e-03 2.46e-02 1.003
## 1393
          1.13e-02
                     2.07e-02 1.45e-02
                                          3.33e-02 -1.23e-02 9.69e-02 1.012
                     1.75e-02 -6.86e-02 -1.22e-02 2.64e-02 1.02e-01 0.996
## 1394
        -3.89e-03
```

```
## 1395
        -2.39e-03
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                                          1.22e-02 1.59e-02 3.24e-02 1.003
                                         -1.32e-02 -5.54e-03 -3.64e-02 1.007
## 1396
         -2.96e-02
                     1.05e-02 -8.38e-04
## 1397
          3.68e-03
                    -5.93e-03 2.71e-03
                                         -1.95e-03 2.05e-03 -1.51e-02 1.006
## 1398
         -4.99e-02
                    -4.45e-03 -9.32e-04
                                         -9.87e-03 -1.29e-02 -6.22e-02 1.002
## 1399
          2.47e-03
                     2.52e-02
                              7.46e-03
                                          4.87e-03
                                                   1.31e-02 -5.03e-02 1.003
## 1400
        -2.98e-02
                     3.11e-02 1.87e-02
                                          5.83e-02 4.84e-02 -1.37e-01 1.003
## 1401
          1.87e-02
                     1.42e-01
                              3.27e-02
                                          3.64e-02 2.85e-02 -1.89e-01 0.990
## 1402
         -6.24e-04
                     2.02e-02
                              7.50e-03
                                          8.27e-03 -5.84e-03 -5.51e-02 1.003
## 1403
         -5.24e-03
                     5.75e-02 3.15e-02
                                          5.73e-02 2.12e-02 -1.45e-01 1.001
## 1404
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                    -1.21e-02 -1.04e-02
                                         -4.38e-03
                                                   2.50e-03 -5.66e-02 1.001
## 1405
          1.14e-02
                    -3.74e-03 -4.00e-02
                                         -2.52e-02 4.29e-03 -8.12e-02 0.990
## 1406
                    -4.94e-03 2.57e-03
          8.15e-03
                                          3.13e-03 -2.87e-02 3.54e-02 1.007
## 1407
          7.38e-04
                     1.77e-04 -1.84e-04
                                          2.21e-04 -4.01e-04 1.98e-03 1.006
## 1408
        -1.09e-03
                    -1.48e-02 1.31e-03
                                         -1.00e-02 -1.69e-03 3.74e-02 1.003
## 1409
                    -5.25e-03 1.24e-02
                                          4.14e-03 1.29e-02 -6.66e-02 1.001
         -2.90e-02
## 1410
         -1.50e-02
                     9.47e-03
                              1.34e-03
                                         -1.05e-02
                                                    2.61e-03 -3.39e-02 1.005
                                                    1.02e-02 -3.91e-02 1.003
## 1411
         -4.76e-03
                     6.17e-03
                              5.55e-03
                                         -3.38e-03
## 1412
         -1.29e-03
                     3.96e-03
                              5.72e-03
                                         -4.68e-03
                                                    7.60e-03 -2.86e-02 1.004
## 1413
        -9.36e-03
                     8.01e-03 4.08e-05
                                         -4.92e-03
                                                    1.17e-03 -2.01e-02 1.006
## 1414
         -6.17e-03
                     9.80e-03 -5.03e-03
                                         -9.83e-03
                                                    3.83e-03 -2.66e-02 1.004
## 1415
          4.09e-04
                     2.95e-04 8.22e-03
                                         -1.72e-03
                                                   5.57e-03 -1.87e-02 1.006
## 1416
                    -1.11e-02 -4.70e-03
                                          3.18e-03 -4.36e-03 2.45e-02 1.006
          3.28e-03
                     3.30e-02 6.84e-03
                                                   1.40e-02 5.02e-02 1.003
## 1417
         -7.65e-03
                                          2.18e-02
                                                    1.35e-02 -1.79e-02 1.007
## 1418
         -7.69e-04
                    -7.94e-04 -2.75e-03
                                         -7.00e-04
## 1419
         -2.74e-04
                     2.01e-03 -1.54e-03
                                          1.98e-03 2.47e-04 8.65e-03 1.006
## 1420
         -3.37e-05
                    -1.61e-03 1.10e-03
                                          2.08e-03 -4.59e-04 6.73e-03 1.006
## 1421
         -6.97e-03
                     1.58e-03 -3.84e-03
                                         -7.52e-03 -3.68e-03 -2.82e-02 1.003
## 1422
          1.51e-03
                    -8.69e-03 7.10e-04
                                          3.57e-03
                                                   8.25e-04
                                                              1.27e-02 1.014
## 1423
                                                    7.52e-03
                                                              3.75e-02 1.008
        -7.86e-03
                    -9.21e-03 -1.75e-02
                                         -4.19e-03
## 1424
        -4.16e-03
                     1.01e-02 1.41e-02
                                          8.84e-03
                                                    8.00e-03
                                                              2.58e-02 1.005
## 1425
         -3.13e-04
                    -4.65e-04 -8.70e-05
                                         -8.24e-04
                                                    1.10e-04
                                                              1.27e-03 1.006
## 1426
         -1.23e-02
                    -1.12e-02 7.35e-03
                                         -5.51e-03
                                                    1.79e-02
                                                              3.84e-02 1.003
## 1427
         -1.14e-04
                    -1.66e-03 -2.46e-03
                                         -2.58e-03
                                                    6.46e-04
                                                              6.41e-03 1.006
## 1428
                                          2.41e-02 -1.24e-03 -3.97e-02 1.006
          4.30e-03
                     1.59e-02 9.73e-03
## 1429
          2.90e-02
                     2.36e-03
                              6.62e-02
                                         -2.62e-02
                                                   6.21e-02 -3.26e-01 0.973
                                          2.26e-03 -3.16e-03 -6.37e-03 1.006
## 1430
          1.88e-03
                     1.16e-04 -2.92e-04
## 1431
          5.91e-04
                     2.27e-03 9.95e-03
                                          1.85e-02 -5.68e-03 -6.99e-02 1.006
## 1432
         -1.21e-03
                    -9.75e-04 -8.63e-04
                                         -8.58e-04 -8.31e-03 -2.44e-02 1.009
## 1433
         -2.54e-03
                     3.67e-03 -6.74e-04
                                         -2.39e-03 -1.36e-03 1.32e-02 1.006
                     2.01e-03 1.37e-02
                                          3.20e-02 -1.01e-02 -7.72e-02 0.998
## 1434
          3.72e-03
                                          4.51e-04 4.69e-03 1.30e-02 1.007
## 1435
         -1.65e-03
                    -3.48e-03 4.87e-03
## 1436
          8.06e-03
                     1.35e-03 -3.76e-02
                                          1.90e-02 -6.29e-02 -1.16e-01 0.999
## 1437
          3.11e-03
                     3.50e-03 -4.55e-03
                                          6.78e-03 1.14e-02 -2.24e-02 1.009
                                          1.11e-03 -1.46e-03 -7.22e-03 1.006
## 1438
                     2.72e-03 -8.47e-04
          1.77e-03
## 1439
         -6.49e-03
                    -1.69e-02 -1.02e-03
                                         -4.69e-03 8.97e-04 2.70e-02 1.005
## 1440
                    -4.01e-03 -1.03e-02
                                                    3.17e-02 -6.93e-02 1.006
          3.73e-03
                                         -1.95e-02
## 1441
          3.24e-04
                     2.36e-03 -1.49e-03
                                         -3.56e-03
                                                    3.26e-04
                                                              7.96e-03 1.007
## 1442
         -2.35e-02
                     1.75e-02 -1.40e-02
                                         -3.19e-02
                                                    4.37e-02 7.86e-02 0.998
        -6.11e-04
## 1443
                    -5.27e-04 2.37e-04
                                          1.13e-03
                                                    3.48e-03 7.46e-03 1.009
## 1444
         -2.82e-02
                    -1.56e-02
                              3.09e-02
                                         -3.29e-02
                                                    1.76e-02 8.12e-02 1.001
## 1445
                                          5.72e-02 -3.79e-02 -1.12e-01 0.996
          2.20e-02
                    -7.91e-03 2.06e-02
## 1446
          2.79e-04
                   -1.91e-04 -1.31e-04
                                          1.45e-04 -5.78e-04 -9.48e-04 1.006
## 1447
          7.96e-04
                     1.00e-03 -7.97e-03
                                         -7.88e-03 4.86e-03 -1.62e-02 1.012
## 1448
        -3.38e-02 -2.42e-02 -5.32e-02 -3.64e-03 -6.53e-02 -1.39e-01 0.998
```

```
## 1449
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                                          2.45e-03 -1.52e-03 -1.07e-02 1.007
## 1450
        -2.68e-04
                     9.34e-04
                              1.80e-03
                                          8.30e-04 2.57e-03 7.79e-03 1.005
## 1451
        -1.44e-03
                     2.28e-03 8.86e-04
## 1452
        -1.17e-02
                    -4.48e-03 -2.74e-04
                                          4.14e-03 -1.90e-02 -5.61e-02 1.005
## 1453
        -4.57e-03
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## 1454
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## 1455
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                     5.06e-03 3.15e-03
## 1456
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        -2.67e-03
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## 1457
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## 1458
        -1.61e-03
                    -5.94e-03 4.26e-03
                                          4.90e-03 -2.34e-03 -1.77e-02 1.005
## 1459
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                     5.41e-03
                              1.75e-02
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## 1460
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         5.83e-03
                     7.16e-03
                              1.12e-02
## 1461
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                     2.80e-05 -1.27e-04
                                         -2.35e-04 -4.44e-04 -9.41e-04 1.005
                                         -6.57e-02 2.99e-02 9.24e-02 1.000
## 1462
        -1.13e-02
                    -1.01e-02 -2.28e-02
## 1463
                    -3.46e-03 -7.39e-03
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        -1.22e-02
## 1464
         6.25e-04
                    -2.75e-04
                              1.34e-05
                                         -5.21e-04 1.39e-03 -3.26e-03 1.010
                                          1.35e-02 -4.57e-03 -3.61e-02 1.002
## 1465
        -2.84e-04
                     7.51e-03
                              1.38e-03
## 1466
        -1.36e-04
                     9.34e-04
                              1.80e-03
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                                          9.82e-03 -9.45e-04 -4.26e-02 1.005
## 1467
        -1.19e-02
                     8.78e-03
                              1.10e-02
## 1468
         2.38e-02
                     3.92e-02
                              5.99e-02
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## 1469
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                   -8.27e-03 -6.88e-03
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## 1470
                   -2.42e-03 1.60e-03
                                          9.79e-03 7.46e-04 -2.08e-02 1.005
         2.95e-03
## 1471
                   -1.09e-02 -1.93e-03
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        -2.86e-03
                     2.27e-02 -7.76e-03
                                         -4.22e-03 2.17e-02 4.29e-02 1.002
## 1472
        -1.77e-03
## 1473
        -1.43e-04
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## 1474
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                     3.60e-03
                              7.71e-03
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## 1475
        -7.56e-03
                   -3.65e-03
                              7.09e-03
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## 1476
         4.41e-03
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                                          2.83e-02 -5.44e-03 -5.50e-02 1.001
## 1477
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         9.83e-04
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## 1478
          1.89e-03
                     1.61e-02
                              1.63e-03
                                          8.02e-03 -1.82e-03 -2.23e-02 1.007
## 1479
          3.36e-03
                   -2.80e-03
                              9.17e-04
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## 1480
        -1.18e-03
                     1.27e-03 -3.77e-04
                                          1.94e-03 4.18e-03 -7.40e-03 1.008
## 1481
         5.08e-03
                    -4.50e-03 7.69e-03
                                          5.52e-03 5.88e-03 -2.32e-02 1.004
## 1482
                   -7.36e-04
                                          9.77e-03 -6.72e-03 -2.60e-02 1.005
        -5.17e-04
                              6.88e-03
## 1483
        -1.02e-03
                    -1.57e-03 -2.53e-03
                                          2.55e-03 3.69e-03 1.30e-02 1.006
        -9.41e-03
                     1.51e-02 1.62e-03
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## 1484
## 1485
         7.61e-04
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## 1486
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        -1.93e-02
                   -4.82e-02 -4.92e-03
                                         -2.52e-02 -1.76e-02 -1.56e-01 1.006
## 1487
        -2.80e-03
                   -4.37e-04 5.38e-03
                                                   9.31e-03 1.62e-02 1.006
## 1488
                                         -1.83e-03
## 1489
        -4.34e-03
                     1.99e-03 9.03e-03
                                          7.56e-03
                                                    1.33e-02 2.27e-02 1.005
## 1490
         2.58e-05
                     3.36e-05 3.73e-06
                                         -3.20e-05
                                                    1.68e-05
                                                             1.85e-04 1.086
                   -4.87e-03 -7.19e-03
## 1491
         1.02e-03
                                         -6.84e-03
                                                    4.09e-03
                                                             1.54e-02 1.006
## 1492
        -8.57e-03
                   -1.55e-02 1.95e-02
                                          8.35e-03
                                                    5.43e-03
                                                             4.03e-02 0.999
## 1493
         2.21e-06
                   -1.24e-03 -2.92e-05
                                          5.41e-04
                                                    1.32e-03 -4.48e-03 1.006
                   -7.77e-03 1.34e-02
                                                              3.60e-02 1.002
## 1494
        -4.67e-03
                                         -9.51e-03
                                                    6.61e-03
## 1495
        -3.07e-02
                     2.10e-02 -5.12e-02
                                         -6.13e-02 2.33e-02
                                                              1.04e-01 1.002
## 1496
        -1.45e-02
                   -5.24e-03 -3.00e-02
                                         -6.95e-02 -5.16e-02
                                                              1.04e-01 1.003
## 1497
         2.28e-01
                   -1.60e-02 9.06e-02
                                          1.20e-02 4.47e-02
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## 1498
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                    -5.89e-04 -3.94e-03
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                   -4.08e-03 4.49e-03
## 1499
        -1.70e-02
                                         -3.24e-02
                                                   1.88e-02
                                                             5.49e-02 1.004
## 1500
        -5.04e-03
                   -4.20e-03 5.18e-03
                                          2.45e-03
                                                   4.24e-03
                                                             2.02e-02 1.005
## 1501
        -1.00e-02
                     1.38e-02 1.23e-02
                                        -9.51e-04 1.49e-02 4.48e-02 1.001
## 1502
        -1.09e-02
                    1.15e-02 -4.79e-03 -1.98e-02 1.38e-02 4.32e-02 1.004
```

```
## 1503
        -7.66e-03
                     9.83e-03 1.10e-02
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                    -9.92e-04 -5.99e-02
## 1504
        -2.12e-02
                                         -5.49e-02
                                                    3.48e-04
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                     4.68e-03 -1.01e-03
## 1505
         -3.57e-03
                                         -5.24e-03 5.25e-03
                                                               1.46e-02 1.007
## 1506
        -2.05e-02
                     1.75e-02
                              2.48e-02
                                         -9.16e-03 -1.11e-03
                                                               6.26e-02 1.001
## 1507
         -6.06e-03
                    -3.49e-03
                               9.99e-03
                                          8.84e-03 -7.21e-04
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## 1508
                                          1.82e-03 2.60e-04
          7.09e-03
                     9.69e-04
                               5.12e-03
                                                               1.96e-02 1.004
## 1509
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                                                               6.55e-03 1.005
## 1512
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## 1513
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                     3.92e-02 2.61e-02
                                           6.09e-02 -9.30e-02
                                                              1.88e-01 0.993
## 1514
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                     1.47e-03 -1.55e-02
                                           9.07e-03
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## 1515
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                                         -2.59e-03
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        -1.02e-02
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## 1516
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## 1517
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                                         -1.31e-02 8.06e-03
          6.34e-02
                                                               9.06e-02 0.993
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                                         -2.45e-02 -7.05e-02
                                                               1.03e-01 1.001
## 1519
         -3.22e-02
                    -5.35e-03 -5.81e-02
                                         -8.62e-02 3.35e-02
                                                               1.20e-01 0.992
## 1520
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                               1.05e-02
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                                                    7.37e-03
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                              4.21e-02
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## 1524
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                    -1.28e-02
                               9.34e-03
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## 1527
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                     1.86e-02
                               1.57e-02
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## 1528
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                    -9.28e-03
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## 1529
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                                                               2.75e-02 1.009
## 1530
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          3.24e-03
                                          4.90e-04 -5.90e-04
## 1531
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                     6.11e-03 -4.27e-03
## 1532
          2.53e-02
                                         -1.99e-02
                                                    9.51e-03
                                                               4.60e-02 1.005
## 1533
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                               6.60e-03
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                                                    1.27e-02
                                                               4.86e-02 1.003
## 1534
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                    -2.21e-03
                               1.67e-02
                                         -2.06e-02
                                                    4.72e-03
                                                               5.14e-02 1.004
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                               6.40e-04
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                                                     1.54e-02
                                                               3.71e-02 1.004
        -2.03e-03
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                     9.10e-03 -1.86e-03
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                                                    1.06e-03
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                                                               4.42e-02 1.002
  1537
         -1.60e-02
                     1.10e-02 -5.90e-04
                                         -8.98e-03
                                                    9.83e-03
## 1538
        -2.01e-02
                     2.15e-02 9.68e-03
                                         -2.78e-02 -6.62e-02
                                                               1.01e-01 0.998
## 1539
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                    -9.61e-03 -3.63e-04
                                         -7.53e-03
                                                    2.95e-03
                                                               2.08e-02 1.005
## 1540
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                                         -1.42e-02
                                                    1.67e-02
                                                               3.89e-02 1.003
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                                           1.32e-04
                                                     1.64e-03
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## 1541
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## 1542
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## 1543
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## 1545
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## 1546
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                                         -1.87e-02
## 1547
         -4.27e-03
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                                         -5.52e-03
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## 1548
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        -3.76e-02
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## 1549
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## 1550
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                                         -1.11e-03 -2.19e-03
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## 1551
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                     6.06e-03 -3.46e-03
                                         -1.04e-02
                                                    1.19e-02
                                                               2.35e-02 1.006
## 1552
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                                         -1.68e-02
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## 1553
          2.29e-03
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                                         -4.05e-03
                                                    3.37e-03
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## 1554
          7.99e-02
                    -2.35e-03 5.99e-03
                                          1.35e-03 -4.96e-03 9.16e-02 1.018
## 1555
        -1.47e-02
                     2.49e-03 -1.51e-02
                                         -7.69e-03 -1.39e-02 -3.38e-02 1.006
## 1556
          1.36e-04 -5.57e-03 8.13e-04 -4.07e-03 -1.16e-04 1.09e-02 1.006
```

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                    -9.26e-04
        -1.31e-03
## 1559
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## 1560
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                     3.64e-02
                               2.83e-02
                                          1.33e-02
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## 1562
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        -3.16e-04
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## 1565
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## 1568
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        -2.97e-02
## 1569
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        -2.22e-03
                    -1.87e-03 2.27e-02
                                          2.35e-02
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## 1570
## 1571
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          1.73e-04
## 1572
          4.79e-03
                     2.00e-02 -8.45e-03
                                          5.82e-02
                                                    1.80e-03 -9.59e-02 1.002
## 1573
          3.07e-03
                     6.60e-03 1.86e-02
                                          6.63e-03 -2.83e-02 -1.04e-01 0.993
## 1574
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## 1575
        -4.21e-04
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## 1576
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                                          1.93e-03 -5.26e-03 -1.78e-02 1.005
## 1577
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## 1578
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## 1579
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## 1582
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## 1583
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        -2.00e-04
## 1584
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## 1585
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## 1586
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                     2.56e-03 2.67e-03
                                          1.84e-03 7.28e-04 6.91e-03 1.008
## 1587
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                                         -2.03e-04 8.86e-04 5.94e-03 1.007
## 1588
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                    -4.11e-03 7.95e-03
                                         -1.83e-03 -2.05e-04 -2.00e-02 1.005
## 1589
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## 1590
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        -6.36e-03
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          3.68e-03
                    -2.24e-03
                              3.30e-03
## 1592
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          1.58e-03
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## 1593
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                                         -5.37e-03 2.92e-03 -2.95e-02 1.004
## 1594
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                     8.88e-03 -2.71e-03
                                         -1.47e-04 6.34e-03 -2.16e-02 1.008
## 1595
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                                          3.78e-03 -1.50e-04 8.09e-02 1.001
        -4.47e-03
                    -2.61e-02 2.06e-02
                                          4.37e-03 -1.51e-02 5.22e-02 1.008
## 1596
## 1597
          9.54e-05
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                                          7.80e-04 -9.28e-03
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## 1598
        -3.87e-04
                    -1.41e-03 7.20e-04
                                          1.74e-03 8.36e-04
                                                              3.42e-03 1.005
## 1599
        -6.63e-03
                     2.92e-03 -9.10e-03
                                          1.39e-03 2.55e-03
                                                             3.02e-02 1.001
## 1600
          2.31e-06
                     2.09e-04 -4.09e-04
                                         -2.18e-04 -2.70e-04 -7.13e-04 1.006
## 1601
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## 1602
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                    -2.16e-03
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                              1.23e-02
## 1603
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## 1604
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                                         -6.06e-03
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## 1605
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                                          8.97e-03 -2.55e-03 2.34e-02 1.004
## 1607
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        -1.60e-03
## 1608
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                                          1.34e-02 7.37e-03 2.53e-02 1.004
## 1609
        -4.70e-04
                     2.13e-04 3.60e-04
                                          5.06e-04 -6.12e-04 3.26e-03 1.005
## 1610
        -6.70e-03
                   -1.23e-02 1.27e-03
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```

```
## 1611
          3.97e-04
                     1.79e-03 -1.69e-03 -1.13e-03 -1.05e-03 -4.94e-03 1.005
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                                          7.99e-04 9.37e-03 2.54e-02 1.003
## 1612
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## 1613
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## 1614
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          1.10e-04
## 1615
         -1.30e-03
                    -1.66e-03
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                    -1.06e-02 5.70e-03
                                          8.26e-03 -4.92e-03
                                                              3.22e-02 1.003
## 1616
          8.82e-03
                    -4.97e-03
## 1617
          1.39e-03
                              5.24e-04
                                         -2.08e-03 2.33e-03 -8.62e-03 1.008
## 1618
          1.36e-03
                    -1.11e-02
                               2.76e-03
                                          4.94e-03 1.08e-03
                                                              1.94e-02 1.004
## 1619
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                     8.49e-05
                               2.86e-04
                                          2.90e-04 -1.38e-04
                                                               6.86e-04 1.006
## 1620
        -2.84e-03
                    -1.32e-02
                              1.42e-02
                                          4.11e-03 2.24e-03
                                                              2.28e-02 1.005
## 1621
          1.43e-02
                     2.31e-02
                              1.77e-02
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                                                              1.02e-01 0.997
## 1622
                     7.76e-03 -1.53e-05
         -1.41e-03
                                          5.65e-03
                                                    1.29e-02
                                                              2.52e-02 1.007
## 1623
          9.58e-03
                    -2.44e-02 1.22e-03
                                          3.58e-03
                                                    9.54e-03 -4.59e-02 1.002
## 1624
          6.72e-04
                    -6.17e-04 2.34e-03
                                         -1.30e-03
                                                    1.06e-04 -4.44e-03 1.006
## 1625
                    -1.60e-02 1.92e-02
         -2.31e-03
                                          1.17e-02
                                                    9.52e-03
                                                              5.14e-02 1.001
## 1626
         -9.34e-04
                    -4.76e-03
                              1.07e-03
                                          2.52e-03
                                                    1.08e-03
                                                              7.39e-03 1.006
                                                              1.94e-02 1.004
## 1627
         -4.59e-04
                    -6.24e-03 -3.15e-03
                                          7.30e-03 -1.55e-03
## 1628
        -3.58e-03
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                                          3.25e-03
                                                    4.76e-03
                                                              2.23e-02 1.006
## 1629
        -2.30e-03
                     1.23e-02 1.82e-02
                                          2.00e-02
                                                    1.28e-02
                                                              4.31e-02 1.002
## 1630
          2.83e-03
                    -1.89e-03 5.92e-03
                                          1.09e-02 -2.46e-03
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## 1631
        -5.60e-03
                    -8.63e-03 1.05e-02
                                          5.37e-03 8.99e-03
                                                              3.27e-02 1.004
## 1632
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## 1633
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          3.67e-02
                    -1.42e-02 3.17e-02
## 1634
          3.81e-03
                                          2.08e-02 -1.95e-03
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## 1635
        -3.64e-03
                    -2.01e-02 2.82e-02
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## 1636
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## 1637
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          2.08e-03
## 1638
        -3.23e-04
                    -8.84e-03 -1.91e-03
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## 1639
                                                              3.08e-02 1.002
        -4.77e-03
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                                          1.14e-02 8.22e-03
## 1640
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                                                               1.42e-02 1.004
                    -1.04e-02 2.16e-02
## 1641
         -4.21e-03
                                          1.34e-02
                                                    7.59e-03
                                                               3.35e-02 1.002
## 1642
          8.63e-04
                    -1.78e-03 -2.14e-04
                                          4.24e-03
                                                    6.97e-04
                                                               7.58e-03 1.005
## 1643
        -1.30e-03
                    -5.09e-02
                              1.11e-02
                                          4.26e-02
                                                    2.22e-02
                                                               9.57e-02 1.000
## 1644
        -7.45e-03
                    -3.78e-03
                               2.04e-02
                                          1.77e-02 -1.45e-03
                                                              3.52e-02 1.001
  1645
          4.23e-04
                    -6.64e-03
                              1.02e-03
                                          5.67e-03
                                                    3.87e-03
                                                               1.24e-02 1.005
## 1646
          2.89e-04
                     2.69e-04
                              1.44e-03
                                          2.01e-03
                                                    1.64e-03
                                                              3.92e-03 1.006
## 1647
        -1.21e-04
                     1.79e-04
                              1.92e-04
                                          3.09e-04 -3.26e-04
                                                               9.92e-04 1.006
## 1648
        -2.15e-03
                     6.35e-03
                               6.92e-03
                                          1.68e-02 2.00e-02
                                                               4.53e-02 1.004
## 1649
         -3.11e-03
                     8.04e-04
                               9.29e-03
                                          1.22e-02 -6.96e-03
                                                               2.77e-02 1.004
## 1650
                              3.29e-03
                                          2.13e-03 -1.29e-03
                                                              7.49e-03 1.005
        -1.16e-03
                    -3.16e-03
## 1651
        -2.86e-03
                    -1.81e-03
                              2.71e-03
                                          5.75e-03
                                                   6.10e-03
                                                               2.30e-02 1.003
## 1652
        -1.40e-03
                    -7.15e-03 -4.38e-04
                                          4.27e-03
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## 1653
        -7.19e-04
                     1.71e-03
                              1.69e-03
                                          8.13e-04 1.71e-03
                                                              4.49e-03 1.006
## 1654
        -2.55e-03
                     5.86e-03
                              2.25e-03
                                          3.91e-03 -5.74e-04
                                                              1.44e-02 1.004
## 1655
        -3.11e-03
                    -1.24e-02 4.73e-03
                                          1.77e-02 1.52e-02
                                                              4.30e-02 0.999
## 1656
                    -3.88e-02 -6.21e-03
                                         -3.34e-02 -2.91e-02 -1.10e-01 0.995
          6.05e-03
## 1657
          4.58e-03
                    -3.43e-03
                              1.13e-02
                                          1.24e-02 -2.48e-03
                                                               2.52e-02 1.004
## 1658
          6.52e-03
                     5.17e-03
                              2.76e-02
                                          3.53e-02 -3.19e-03
                                                               6.36e-02 0.989
## 1659
         -3.27e-03
                     3.89e-03
                              1.61e-02
                                          1.83e-02 8.58e-03
                                                              3.35e-02 1.004
## 1660
         -6.63e-03
                     1.20e-02
                               5.63e-03
                                          1.68e-02 -3.30e-04
                                                               3.60e-02 1.001
## 1661
         -1.22e-03
                    -1.97e-02 2.36e-02
                                          1.28e-02 1.42e-02
                                                               4.87e-02 1.006
## 1662
        -2.68e-03
                    -3.02e-03 -1.59e-02
                                          5.42e-03 8.78e-05
                                                              3.16e-02 1.004
## 1663
        -3.10e-03
                     2.86e-03 3.21e-03
                                          4.71e-03 -5.27e-05
                                                              1.77e-02 1.003
## 1664
         8.47e-05
                     2.75e-04 1.86e-05
                                          3.11e-04 -1.17e-04 5.77e-04 1.007
```

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## 1665
        -7.77e-04
                   -3.44e-03 3.87e-03
                                          2.33e-03 7.63e-04 5.96e-03 1.006
        -2.31e-03
                                                   1.14e-02 3.42e-02 1.004
                                          1.94e-02
## 1666
                     1.00e-03
                              1.36e-02
                   -1.88e-02 8.43e-03
## 1667
         1.66e-02
                                          3.09e-02 2.17e-03 4.98e-02 0.999
## 1668
         9.01e-06
                   -1.51e-04 -2.12e-04
                                         -2.15e-03 -3.85e-03 -7.92e-03 1.008
## 1669
         1.59e-05
                     9.00e-06 -3.44e-04
                                          1.04e-03 3.69e-04
                                                             1.83e-03 1.006
## 1670
                   -8.47e-05 4.01e-03
                                          4.78e-03 -9.43e-04 8.10e-03 1.006
        -1.27e-03
                   -4.93e-04 -4.07e-05
## 1671
        -1.20e-04
                                          5.00e-04 1.33e-04 1.21e-03 1.005
## 1672
        -3.31e-03
                   -1.01e-02 -4.23e-04
                                          3.01e-03 -2.29e-04 1.69e-02 1.005
## 1673
         5.94e-04
                     4.98e-03 -4.45e-03
                                         -2.15e-03 -1.76e-03 -7.87e-03 1.005
## 1674
         2.65e-03
                     3.30e-03 -7.06e-03
                                         -2.26e-03 1.46e-04 -1.38e-02 1.004
## 1675
          3.94e-04
                   -7.72e-04 -6.56e-04
                                         -7.27e-04 4.97e-04 -2.04e-03 1.006
## 1676
                                          2.87e-03 -1.35e-03 7.65e-03 1.006
                   -1.78e-03 3.30e-03
        -4.98e-04
## 1677
         2.03e-03
                   -9.44e-03 -4.26e-03
                                         -1.06e-02 -1.49e-02 -3.24e-02 1.006
## 1678
        -1.65e-03
                                          2.52e-03 -2.50e-03 9.28e-03 1.007
                     4.39e-03 3.07e-04
## 1679
        -2.60e-04
                   -5.80e-04 2.82e-04
                                          9.09e-04 9.47e-04
                                                              4.07e-03 1.005
## 1680
        -2.36e-03
                     2.21e-03 -7.28e-04
                                         -7.91e-04 2.37e-04
                                                              6.60e-03 1.005
                                          2.08e-02 1.04e-03
                                                              3.35e-02 1.005
## 1681
         1.11e-03
                   -1.53e-02 2.03e-02
## 1682
        -3.32e-03
                   -7.70e-03 -2.62e-02
                                          1.66e-02 -3.21e-03
                                                              5.78e-02 1.004
## 1683
                                          6.57e-03 -6.56e-03
        -2.33e-04
                   -1.45e-02 1.10e-02
                                                             2.95e-02 1.003
## 1684
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                                         -3.88e-02 -4.33e-02
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## 1685
        -1.55e-03
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                                         -7.55e-03 -1.07e-02 -3.76e-02 1.003
## 1686
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                                          5.72e-02 -4.16e-02 -9.63e-02 0.993
         3.35e-02
## 1687
                     2.77e-02 2.82e-02
                                          4.62e-02 -1.20e-02 2.02e-01 0.996
          1.63e-01
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## 1688
        -2.09e-03
                   -9.82e-03 1.63e-02
## 1689
        -4.25e-04
                     2.18e-05 -3.56e-04
                                         -4.56e-04 -5.10e-04 -2.26e-03 1.006
## 1690
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                   -1.04e-03 -1.53e-02
                                         -1.88e-02 8.15e-03 2.94e-02 1.004
## 1691
        -4.13e-03
                     1.01e-02 6.38e-03
                                         -2.19e-02
                                                    2.69e-02 5.62e-02 1.002
## 1692
        -8.30e-03
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                                         -3.28e-03 -1.78e-02 -8.15e-02 0.998
## 1693
                   -4.96e-05 1.99e-03
                                          1.42e-03 3.27e-03 1.08e-02 1.004
         5.96e-03
## 1694
        -4.77e-03
                   -2.46e-03 -3.71e-03
                                         -3.65e-03
                                                   1.49e-03 -3.47e-02 1.007
## 1695
        -1.17e-02
                    -3.01e-02 5.27e-02
                                         -1.24e-02 3.37e-02 -1.06e-01 1.013
## 1696
        -6.08e-03
                    -4.81e-03 3.41e-03
                                         -3.38e-03 -1.43e-03 -1.41e-02 1.005
## 1697
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                   -2.89e-03
                              1.34e-03
                                         -2.36e-03 7.73e-04 -6.89e-03 1.005
                   -4.54e-03 -1.13e-03
## 1698
                                          8.43e-04 -4.25e-04 7.50e-03 1.006
        -4.89e-04
## 1699
         -5.36e-04
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                                         -8.29e-03 -1.47e-03 -1.78e-02 1.005
## 1700
        -1.61e-05
                                          1.78e-03 -4.27e-04 5.07e-03 1.005
                   -2.21e-03 4.92e-04
## 1701
         2.87e-03
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                                         -1.19e-02 -5.25e-03 -6.37e-02 0.993
## 1702
        -1.45e-02
                     9.01e-04 -1.56e-03
                                         -1.19e-02 -9.95e-04 -2.47e-02 1.003
## 1703
         7.52e-05
                     2.12e-03 -7.25e-04
                                         -1.63e-03 -4.32e-04 -4.40e-03 1.005
                     6.72e-04 -1.43e-03
                                         -1.63e-04 -1.28e-05 -2.60e-03 1.005
## 1704
         2.37e-04
## 1705
                                         -2.38e-04 6.41e-04 -2.39e-03 1.006
         6.22e-05
                    -6.51e-04 3.67e-04
## 1706
         9.29e-05
                   -1.51e-03 3.69e-03
                                         -1.70e-03 3.31e-03 -1.36e-02 1.005
## 1707
        -2.42e-03
                     1.02e-02 6.60e-03
                                         -7.72e-03 -3.36e-03 -2.77e-02 1.004
## 1708
        -1.72e-02
                     6.02e-02 -3.11e-02
                                         -9.92e-03 -7.11e-03 -1.31e-01 0.992
## 1709
         1.22e-03
                    -1.41e-03 -1.10e-03
                                          2.60e-03 2.87e-04 1.29e-02 1.005
                     1.12e-02 7.57e-03
                                         -2.56e-02 -5.94e-03 -7.91e-02 1.003
## 1710
          1.33e-02
## 1711
          1.60e-03
                    -5.39e-03 3.21e-03
                                         -8.62e-04 4.25e-03 -1.53e-02 1.006
                                          5.98e-04 -5.50e-04 -7.86e-03 1.005
## 1712
         2.66e-04
                     1.30e-03 3.46e-03
## 1713
         7.40e-05
                     7.37e-04 -6.02e-03
                                         -5.62e-03 -2.45e-03 -1.00e-02 1.005
                                          2.86e-04 5.00e-03 2.42e-02 1.004
## 1714
        -2.82e-03
                     1.41e-03 -9.40e-03
## 1715
                     1.46e-03 5.44e-03
                                         -3.06e-03 -2.90e-04 -1.47e-02 1.005
        -9.25e-04
## 1716
        -1.52e-03
                    -1.77e-03 -2.33e-04
                                         -2.55e-03 1.22e-03 8.89e-03 1.004
## 1717
         6.88e-04
                     1.16e-03 5.00e-03
                                        -1.70e-03 3.48e-03 -1.33e-02 1.005
## 1718
        -7.63e-04
                     6.02e-03 -4.51e-03 -3.52e-03 1.98e-04 -1.00e-02 1.006
```

```
## 1719
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                   -1.96e-03 9.12e-06
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                                          1.25e-03 -5.36e-04 4.78e-03 1.006
## 1720
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                   -2.24e-03 2.27e-03
## 1721
         8.72e-07
                     4.13e-05 -3.74e-06
                                         -3.22e-05 -1.14e-05 -8.25e-05 1.005
## 1722
         5.99e-05
                   -4.19e-04 5.40e-04
                                          5.69e-04 4.26e-04 1.20e-03 1.006
## 1723
         1.11e-03
                   -3.33e-04 3.22e-02
                                          2.33e-02 9.48e-03 4.17e-02 1.013
## 1724
                     4.89e-03 -2.42e-02
                                         -3.61e-03 2.95e-03 -3.54e-02 1.002
         5.42e-03
## 1725
         4.59e-04
                   -2.70e-04 -6.28e-03
                                         -5.07e-03 -5.21e-04 -9.49e-03 1.005
                   -1.05e-03 1.43e-03
                                          2.22e-03 1.19e-03 5.40e-03 1.005
## 1726
         2.31e-04
## 1727
          4.13e-04
                    -3.59e-04 -1.58e-03
                                         -2.18e-03 -5.63e-04 -3.35e-03 1.005
## 1728
         4.76e-03
                   -1.04e-03 2.23e-02
                                          8.58e-04 -4.88e-03 -3.31e-02 1.004
## 1729
         1.02e-03
                     3.38e-03 -4.57e-03
                                          5.78e-04 -2.95e-05 -1.00e-02 1.005
## 1730
                                          8.09e-05 1.42e-04 -9.56e-03 1.006
          1.54e-03
                     1.37e-03 -6.11e-03
## 1731
         5.15e-05
                   -7.55e-04 -5.05e-04
                                          1.52e-04 1.08e-04 1.50e-03 1.006
## 1732
        -1.37e-03
                   -2.13e-03 -4.02e-03
                                          1.43e-03 4.08e-03 -1.75e-02 1.004
## 1733
                    -2.23e-03 -3.90e-04
                                          6.32e-04 -3.71e-05 5.32e-03 1.005
         2.99e-04
## 1734
         2.06e-03
                    -6.86e-04 1.69e-04
                                          8.33e-05 -5.67e-04 3.09e-03 1.006
## 1735
                                         -2.17e-03 7.22e-04 -1.01e-02 1.006
        -7.30e-03
                     2.38e-03 -2.84e-04
## 1736
        -2.81e-03
                     4.22e-03 2.21e-04
                                         -1.80e-03 -6.46e-04 -7.20e-03 1.006
## 1737
                                         -7.47e-03 -3.45e-03 -2.45e-02 1.003
        -1.84e-03
                     4.96e-03 -7.44e-04
## 1738
        -1.90e-03
                     2.13e-02 -8.20e-03
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## 1739
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                     4.88e-04 -3.76e-04
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## 1740
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                     1.85e-02 -3.19e-02
                                          7.26e-03 -8.92e-03 -5.31e-02 1.000
                                          1.09e-03 8.91e-04 1.56e-02 1.006
## 1741
                     6.23e-03 -5.40e-03
          1.72e-03
                   -1.41e-03 4.81e-04
                                                   2.27e-03 -9.77e-03 1.007
## 1742
         1.11e-03
                                         -1.20e-03
## 1743
         5.49e-03
                     3.88e-02 -4.83e-02
                                         -2.79e-02 8.57e-03 -7.51e-02 0.998
## 1744
        -2.47e-03
                   -1.48e-03 4.52e-03
                                         -1.55e-05 2.23e-03 -1.24e-02 1.006
## 1745
         2.24e-04
                     1.19e-02 -1.31e-02
                                         -8.50e-03 -2.85e-03 -2.09e-02 1.005
## 1746
        -2.35e-03
                   -3.01e-03 1.03e-02
                                          4.19e-04 -4.42e-03 1.86e-02 1.005
## 1747
                   -1.61e-02 3.81e-03
                                          4.59e-03 9.21e-03 3.18e-02 1.011
         5.46e-03
## 1748
        -2.29e-03
                   -1.48e-02 1.36e-02
                                         -2.11e-03 1.03e-03 -3.99e-02 1.006
## 1749
        -1.32e-03
                    -4.49e-03 6.25e-03
                                          1.69e-03
                                                   2.31e-03 1.61e-02 1.004
                                         -1.85e-04 1.54e-06 -6.96e-04 1.006
## 1750
        -6.50e-05
                     4.04e-04 -3.03e-04
## 1751
         7.14e-03
                   -1.28e-02 1.51e-02
                                          1.59e-02 1.00e-03 -3.22e-02 1.003
## 1752
                   -8.00e-03 -6.53e-03
                                         -1.32e-02 -3.10e-03 -2.69e-02 1.002
         8.06e-04
## 1753
        -7.05e-03
                     6.22e-03 -1.91e-02
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## 1754
                     2.87e-03 -2.97e-03
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         1.18e-03
## 1755
         1.02e-03
                   -1.94e-03 2.89e-03
                                         -1.14e-03 -4.62e-03 -1.68e-02 1.004
## 1756
         2.09e-03
                   -1.02e-02 2.95e-02
                                          6.99e-03 2.91e-04 -3.36e-02 1.005
## 1757
          1.78e-04
                    -2.48e-03 7.72e-03
                                          5.83e-03 3.06e-03 1.37e-02 1.005
        -3.88e-04
                     3.83e-03 -7.33e-03
                                         -4.97e-03 -1.84e-03 -1.71e-02 1.004
## 1758
                                          4.24e-03 -2.84e-03 1.83e-02 1.004
## 1759
        -8.61e-05
                   -3.63e-03 -3.00e-03
## 1760
         4.25e-05
                   -7.92e-05 3.00e-03
                                          3.74e-03 8.56e-04 6.34e-03 1.005
                   -1.31e-03 -2.08e-03
## 1761
         1.48e-04
                                          1.52e-03 -1.17e-03
                                                             7.52e-03 1.005
## 1762
         1.41e-04
                   -9.56e-04 3.18e-04
                                          9.50e-05 -4.70e-04 3.13e-03 1.006
## 1763
        -1.17e-03
                     2.71e-03 -6.07e-03
                                         -5.33e-03 3.30e-03 -1.61e-02 1.005
## 1764
                   -1.61e-03 3.23e-02
                                          3.12e-03 1.23e-02 -5.16e-02 1.002
          1.52e-03
## 1765
         2.38e-03
                   -1.19e-02 -1.82e-03
                                          8.61e-04 -4.97e-03 2.21e-02 1.006
                                          3.31e-04 2.04e-03 -9.40e-03 1.006
## 1766
        -8.40e-04
                     5.44e-03 2.23e-03
## 1767
        -2.89e-03
                     2.35e-03 3.39e-04
                                         -5.46e-04 -5.08e-04 -4.54e-03 1.007
## 1768
        -1.73e-03
                   -5.16e-04 8.35e-03
                                         -4.35e-03 2.74e-03 -1.84e-02 1.005
                     2.78e-04 -4.80e-04
                                                   1.16e-03 2.17e-03 1.006
## 1769
        -4.88e-04
                                          3.54e-04
## 1770
        -4.67e-05
                   -3.97e-05 -7.23e-05
                                          1.85e-04 1.88e-04 8.24e-04 1.006
                   -1.96e-03 1.01e-02
## 1771
         1.78e-03
                                         -1.72e-02 2.62e-03 -4.97e-02 1.014
## 1772
         2.51e-03 -2.25e-03 3.08e-03
                                          3.07e-03 -3.49e-03 -1.05e-02 1.004
```

```
## 1773
         2.94e-03
                   -1.94e-03 9.82e-03
                                          3.15e-03 7.97e-03 -2.20e-02 1.011
        -4.38e-03
                                          2.14e-02 -4.03e-02 7.40e-02 1.004
## 1774
                   -6.83e-03
                              1.43e-03
        -7.71e-03
## 1775
                   -8.73e-03 -9.80e-04
                                          3.10e-03 -8.96e-04 -3.80e-02 1.000
## 1776
         5.57e-04
                   -3.86e-04
                              1.20e-04
                                          5.94e-04 2.77e-05 -2.97e-03 1.006
## 1777
         1.43e-03
                   -2.30e-02
                              2.67e-02
                                          1.70e-02 -3.25e-02 -1.02e-01 0.997
## 1778
                     2.71e-03
                                          1.81e-03 -6.42e-04 -6.28e-03 1.006
         1.35e-03
                              2.78e-03
                   -5.93e-04
                                          1.79e-03 -9.59e-03 -1.66e-02 1.004
## 1779
         1.63e-04
                              3.27e-03
                                          3.07e-03 1.38e-02 3.13e-02 1.005
## 1780
        -4.64e-03
                   -6.22e-03
                              2.59e-03
## 1781
        -2.54e-03
                     2.06e-05
                              6.36e-03
                                          6.26e-03 -1.83e-02 2.72e-02 1.006
## 1782
         4.28e-03
                   -2.57e-03 -1.21e-02
                                         -8.85e-03 3.47e-02 -6.72e-02 1.005
## 1783
        -4.34e-03
                   -1.08e-02 1.16e-02
                                         -1.59e-04
                                                    1.43e-02 3.20e-02 1.006
## 1784
                                                             2.98e-02 1.007
        -4.74e-03
                     2.86e-03 -2.83e-03
                                          4.26e-03
                                                   1.54e-02
                   -1.89e-05 8.36e-05
## 1785
        -4.48e-05
                                          6.56e-05 -1.17e-04 2.47e-04 1.008
                   -2.34e-03 -1.41e-03
## 1786
         4.01e-03
                                          7.32e-04 6.35e-04 -1.64e-02 1.005
## 1787
                   -1.76e-03 -8.94e-03
                                         -1.28e-02 -9.29e-03 -3.49e-02 1.005
         2.86e-03
## 1788
        -2.91e-03
                     2.88e-03
                              1.29e-03
                                          1.13e-03 7.60e-03 1.89e-02 1.009
                                          3.25e-03 1.04e-02 3.31e-02 1.005
## 1789
        -9.53e-03
                     2.36e-03 -6.45e-03
## 1790
         1.08e-04
                   -1.14e-03
                              1.24e-03
                                          1.38e-03 -1.38e-03 -3.84e-03 1.007
## 1791
                                          2.50e-04 -4.65e-05 -5.87e-04 1.005
          1.84e-04
                   -1.65e-05 2.16e-04
## 1792
         1.46e-02
                     1.14e-02 -1.80e-02
                                         -2.29e-02 8.28e-03 4.69e-02 1.001
## 1793
         1.93e-04
                     1.33e-03 -3.97e-03
                                          7.20e-03 -1.54e-03 -1.72e-02 1.004
## 1794
        -1.70e-02
                     4.96e-03 -5.64e-03
                                          6.26e-03 -6.67e-05 -2.48e-02 1.011
        -2.29e-03
                   -2.23e-04 1.93e-03
                                         -2.42e-03 1.58e-03 6.77e-03 1.005
## 1795
                    -4.26e-02
                                                   1.30e-02 1.18e-01 0.992
## 1796
        -2.69e-02
                              1.67e-02
                                         -8.44e-02
## 1797
        -8.13e-03
                   -5.24e-02 5.26e-02
                                          1.11e-01 7.75e-02 -2.86e-01 0.983
## 1798
        -8.33e-03
                   -5.95e-03
                              1.72e-03
                                          4.23e-03 -8.23e-03 -1.86e-02 1.007
## 1799
        -2.85e-03
                   -3.61e-04 -4.78e-04
                                         -1.68e-03 -1.46e-03 9.48e-03 1.008
## 1800
        -5.58e-03
                   -9.64e-04 -4.34e-03
                                         -1.00e-02 7.87e-03 2.15e-02 1.005
## 1801
                   -4.21e-03 2.27e-03
                                          1.44e-02 -2.74e-03 -1.94e-02 1.011
         9.44e-04
## 1802
        -2.04e-04
                     1.32e-02 5.13e-03
                                         -7.20e-03 -2.47e-03 2.62e-02 1.006
## 1803
         5.65e-03
                   -4.37e-03
                              3.87e-03
                                          1.54e-02 -8.28e-03 -2.46e-02 1.005
## 1804
        -2.75e-04
                     3.56e-03
                              1.14e-02
                                          7.56e-03 5.62e-03 2.03e-02 1.008
## 1805
         2.69e-04
                   -7.11e-04
                              6.49e-04
                                          9.61e-04 -2.00e-04 -2.00e-03 1.005
## 1806
                     2.09e-06
                                          9.82e-05 -2.12e-05 -1.23e-04 1.010
        -7.88e-06
                              3.06e-06
## 1807
         -8.58e-03
                    -4.58e-03
                              2.61e-02
                                          2.34e-02 -4.26e-03 -4.40e-02 1.006
## 1808
                     1.77e-03 -4.48e-04
                                         -2.90e-03 2.06e-03 5.45e-03 1.009
        -7.14e-04
## 1809
         2.48e-02
                     2.08e-02 4.10e-04
                                         -2.53e-02 1.31e-02 6.48e-02 1.004
## 1810
         1.07e-02
                     1.51e-02 -4.37e-03
                                         -3.81e-03 7.95e-03 3.87e-02 1.004
## 1811
         4.57e-05
                     5.79e-04 -2.05e-04
                                         -4.78e-04 -2.53e-04
                                                             1.37e-03 1.006
        -6.90e-03
                     2.23e-03 -5.03e-03
                                         -3.82e-02 1.21e-02 5.15e-02 1.007
## 1812
                                         -2.09e-02 -1.53e-02 -4.69e-02 1.015
## 1813
        -3.88e-03
                   -1.59e-02 -1.72e-02
## 1814
         2.20e-03
                   -1.41e-03 -6.41e-04
                                          2.02e-03 -1.25e-03 -6.73e-03 1.004
## 1815
        -2.08e-03
                     1.06e-02 7.81e-03
                                          1.16e-02 8.00e-04 2.59e-02 1.007
        -2.24e-03
                     4.58e-02 -1.09e-01
                                         -8.80e-02 -9.16e-02 1.72e-01 1.001
## 1816
## 1817
         2.44e-01
                    -5.61e-03 2.24e-02
                                          3.35e-02 -2.24e-02 2.67e-01 1.038
## 1818
                     8.97e-02 2.06e-02
                                          8.81e-02 -6.79e-03 5.39e-01 1.036
          4.91e-01
## 1819
        -4.75e-04
                     3.33e-04 1.48e-03
                                         -2.78e-03 4.80e-03 1.19e-02 1.008
## 1820
         2.26e-04
                     4.47e-02 -5.20e-02
                                          5.50e-02 1.46e-02 -1.21e-01 1.008
                                          8.84e-03 -9.63e-03 -6.50e-02 1.006
## 1821
        -3.48e-02
                     6.96e-04 -2.68e-02
                                         -1.48e-02 5.36e-03 3.70e-02 1.006
## 1822
         7.20e-03
                     2.82e-03 -5.05e-03
## 1823
                     1.54e-02 -5.12e-03
        -4.73e-03
                                         -5.02e-03 9.48e-03 2.95e-02 1.007
## 1824
        -1.93e-03
                   -8.07e-07 -4.45e-04
                                         -4.08e-04 -2.64e-04 -2.20e-03 1.012
## 1825
         1.42e-04
                   -8.07e-04 4.32e-03
                                          2.03e-03 -5.34e-03 -1.75e-02 1.009
## 1826
         3.04e-03
                     8.33e-02 -2.83e-02
                                          3.73e-02 -2.55e-02 -1.26e-01 1.008
```

```
-2.92e-02
                   -9.13e-03 -7.11e-02
                                        -4.88e-02 2.72e-02 1.25e-01 0.992
                   -1.89e-03 4.14e-04
## 1828
         2.93e-03
                                         -2.24e-03
                                                   1.79e-03
                                                             6.59e-03 1.012
                                         -4.31e-02 1.30e-02 6.44e-02 1.004
## 1829
        -4.64e-03
                   -2.31e-02 -1.90e-02
## 1830
         3.96e-03
                   -2.77e-02 7.42e-03
                                         -4.12e-02 -8.72e-03 6.64e-02 1.007
## 1831
         7.83e-03
                     7.55e-03 -2.52e-02
                                          9.77e-03 -4.06e-02 -1.30e-01 1.005
## 1832
                     1.72e-02 -8.67e-03
                                         -1.28e-02 -3.39e-03 3.11e-02 1.006
         2.71e-03
                    -2.37e-03 2.64e-02
## 1833
        -2.65e-02
                                          3.70e-02 -1.82e-02 -7.81e-02 1.005
## 1834
        -5.09e-04
                     3.58e-03 2.84e-02
                                          2.46e-02 -9.81e-03 -5.96e-02 1.007
## 1835
         9.19e-03
                     9.78e-03 -9.28e-03
                                          1.07e-02 -2.92e-02 -6.03e-02 1.002
## 1836
        -2.27e-03
                     9.34e-04 -4.07e-05
                                         -5.16e-03 2.91e-03 9.96e-03 1.005
## 1837
        -1.67e-04
                    -3.31e-05 2.88e-04
                                         -5.38e-04 -6.25e-05 1.93e-03 1.007
## 1838
                                          1.12e-02 -1.49e-03 -1.52e-02 1.006
        -3.18e-03
                     4.59e-03 3.57e-03
## 1839
        -9.81e-04
                     3.24e-03 -4.70e-03
                                         -3.94e-03 4.40e-03 1.07e-02 1.007
## 1840
         1.09e-03
                    -4.09e-03 4.28e-04
                                          1.04e-03 2.74e-04 -9.02e-03 1.025
## 1841
                                          1.29e-02 -6.56e-03 -2.48e-02 1.003
         2.57e-04
                     3.53e-03 1.09e-03
## 1842
        -6.19e-03
                     1.40e-03 -5.22e-03
                                         -1.45e-02
                                                   4.60e-03 2.26e-02 1.005
## 1843
        -2.19e-02
                     5.36e-04 -5.71e-03
                                         -2.81e-03 1.16e-02 -3.01e-02 1.020
## 1844
        -6.67e-03
                     4.52e-03 5.43e-03
                                         -2.04e-02 -9.88e-04 3.35e-02 1.016
## 1845
                    -4.61e-04 -1.05e-02
        -6.10e-03
                                         -1.74e-02 1.12e-03 3.24e-02 1.001
## 1846
         6.32e-03
                     2.11e-02 7.81e-03
                                          1.04e-02
                                                   3.15e-02 8.92e-02 1.013
## 1847
        -4.14e-04
                   -2.49e-03 6.17e-03
                                          8.37e-03 -9.91e-04 -1.64e-02 1.006
## 1848
        -1.03e-01
                   -2.10e-02 -4.74e-03
                                         -3.61e-02 -6.84e-03 -1.14e-01 1.016
                   -6.50e-03 1.78e-02
                                                   1.30e-02 3.31e-01 1.021
## 1849
         3.05e-01
                                          1.05e-02
                                                    6.24e-04 -2.25e-02 1.007
## 1850
        -3.61e-03
                     9.98e-04 5.25e-03
                                          1.65e-02
## 1851
        -4.76e-04
                   -9.20e-04 -1.15e-03
                                         -3.20e-03
                                                   3.43e-04 4.08e-03 1.005
## 1852
        -8.33e-03
                   -9.82e-03 -4.15e-03
                                         -1.61e-02
                                                   4.71e-03
                                                             2.79e-02 1.005
## 1853
          1.17e-02
                   -2.27e-02 3.20e-02
                                         -7.91e-03
                                                    2.24e-02 8.85e-02 0.995
## 1854
         7.87e-03
                     3.38e-03 6.20e-04
                                         -6.14e-04 -2.23e-03
                                                             1.37e-02 1.006
## 1855
        -4.04e-04
                                          2.65e-03 -5.47e-03 -1.33e-02 1.007
                   -3.04e-03 -2.30e-04
## 1856
         3.07e-02
                     5.03e-03 -7.15e-03
                                         -5.04e-02 -6.92e-02 1.12e-01 0.999
                     4.66e-06 1.79e-04
## 1857
        -2.93e-05
                                          1.98e-06 6.39e-05 2.86e-04 1.007
## 1858
         3.48e-04
                   -2.70e-02 -4.34e-02
                                          2.21e-02 5.10e-03 -1.15e-01 0.988
## 1859
        -8.54e-03
                     2.86e-02 -9.63e-03
                                          2.01e-02 -1.80e-02 -6.13e-02 0.996
## 1860
        -6.23e-03
                                         -1.39e-02 -8.11e-04 2.31e-02 1.004
                     4.36e-03 2.03e-03
## 1861
         -4.21e-03
                     2.38e-03
                              1.16e-03
                                          9.43e-03 -1.41e-03 -1.74e-02 1.008
                     6.82e-03 -6.03e-03
                                         -5.13e-03 2.44e-03 1.16e-02 1.006
## 1862
        -1.34e-03
## 1863
         6.94e-04
                    -2.16e-02 -8.71e-04
                                         -5.95e-03 9.70e-04 -4.10e-02 1.010
## 1864
        -9.68e-04
                    -4.80e-04 -4.96e-04
                                         -3.79e-04 -3.29e-03 -6.62e-03 1.007
## 1865
        -4.50e-03
                     6.31e-04 7.81e-03
                                          1.39e-03 -7.29e-04 -1.35e-02 1.008
                                         -1.14e-01 -2.44e-02 1.75e-01 0.997
## 1866
         3.79e-02
                     7.09e-02 -7.98e-02
                     8.35e-04 -2.04e-04
## 1867
        -3.97e-04
                                         -1.23e-03 9.31e-04 2.27e-03 1.006
## 1868
         4.21e-03
                   -8.90e-02 9.39e-02
                                          1.51e-01 8.26e-02 -3.19e-01 0.987
## 1869
        -2.83e-04
                     6.42e-04 -8.01e-04
                                         -1.23e-03 1.11e-03 2.32e-03 1.006
## 1870
         1.71e-03
                     5.60e-04 -3.77e-03
                                         -4.26e-03 -3.05e-04 7.03e-03 1.009
## 1871
        -4.87e-04
                   -7.11e-04 6.08e-04
                                          1.76e-03 -5.57e-05 -3.25e-03 1.005
## 1872
         4.34e-03
                     1.14e-02 -8.34e-03
                                         -1.13e-02 8.12e-03 2.38e-02 1.005
## 1873
         1.31e-04
                   -3.77e-05 7.40e-05
                                          1.16e-04 -3.47e-04 6.45e-04 1.009
## 1874
          4.77e-03
                    -5.28e-03 -1.76e-03
                                         -6.19e-03 2.32e-03 1.35e-02 1.005
                    -6.73e-03 1.82e-02
## 1875
        -4.01e-03
                                          3.01e-02
                                                   5.94e-02 -1.57e-01 1.005
## 1876
         2.44e-02
                     1.20e-02 -1.29e-02
                                         -8.69e-03
                                                    1.06e-02 3.88e-02 1.005
                     1.57e-02 -7.33e-03
                                                    1.61e-03 -2.66e-02 1.005
## 1877
        -6.30e-04
                                          1.10e-02
## 1878
        -1.60e-02
                   -2.04e-02 1.28e-02
                                          3.00e-02 7.76e-03 -5.54e-02 1.005
## 1879
         7.48e-03
                   -1.12e-02 -1.13e-02
                                          8.69e-03 -2.19e-03 -2.95e-02 1.006
## 1880
        -3.18e-03
                    1.04e-02 1.62e-02
                                          4.46e-03 4.37e-03 3.47e-02 1.002
```

```
## 1881
        -5.20e-04
                     4.12e-04 5.62e-05
                                        -2.11e-03 1.09e-03 3.92e-03 1.006
## 1882
         1.11e-02
                   -1.68e-02 3.77e-02
                                         -6.67e-03
                                                   5.05e-03 7.08e-02 1.012
## 1883
        -2.57e-03
                    -3.65e-03 -9.29e-04
                                         -6.19e-03
                                                   3.74e-03
                                                             1.16e-02 1.006
        -8.40e-03
## 1884
                     1.42e-02 -2.53e-02
                                         -4.63e-02
                                                   1.82e-02 1.01e-01 1.009
## 1885
         1.34e-03
                     4.23e-03 -6.25e-03
                                         4.85e-03 -2.88e-03 -1.66e-02 1.008
## 1886
                    7.25e-03 -2.42e-03
                                        -1.40e-02 -5.50e-04 2.16e-02 1.006
        -5.26e-03
## 1887
        -3.26e-04
                   -2.19e-04 -3.81e-04
                                         -1.51e-04 -3.38e-04 -1.01e-03 1.009
                    -4.03e-03 2.23e-02
                                          2.98e-02 1.16e-02 1.04e-01 1.022
## 1888
         9.21e-02
## 1889
        -6.09e-04
                    -1.17e-02 3.00e-03
                                         -1.51e-04 7.45e-03 -3.51e-02 1.003
## 1890
        -1.24e-03
                     7.44e-03 4.37e-04
                                          8.78e-03 -4.58e-03 -1.79e-02 1.005
## 1891
         1.52e-02
                   -1.69e-03 -3.00e-02
                                         -4.02e-02 1.72e-02 7.47e-02 1.006
## 1892
        -1.93e-02
                     3.28e-03 -8.79e-03
                                         -3.17e-02
                                                   1.58e-02 6.99e-02 1.009
## 1893
        -8.44e-03
                     1.26e-02 2.60e-02
                                          2.37e-02 -7.82e-03 -5.56e-02 1.009
                                                   1.49e-05
## 1894
         5.68e-06
                    -9.10e-06 8.54e-06
                                         -2.44e-07
                                                             3.93e-05 1.006
## 1895
                     1.61e-03 -3.88e-03
                                         -5.36e-03
                                                   1.93e-03 7.27e-03 1.006
        -1.93e-03
## 1896
         7.77e-04
                     5.84e-03 -1.23e-03
                                         -1.02e-02
                                                   1.32e-02
                                                             3.93e-02 1.005
## 1897
        -6.26e-03
                     2.63e-02 3.00e-02
                                         -2.23e-02 9.80e-03 8.28e-02 0.990
## 1898
        -5.91e-02
                   -1.09e-03
                              2.74e-03
                                          5.18e-03 -2.50e-02 -8.76e-02 1.012
## 1899
                                         -7.19e-04 -8.87e-04 -1.80e-02 1.010
        -1.39e-02
                   -5.02e-03 2.94e-03
## 1900
        -9.14e-03
                   -2.47e-03 -6.28e-03
                                         -1.14e-03 -7.65e-05 -2.35e-02 1.005
## 1901
        -2.13e-04
                   -2.49e-02 6.99e-03
                                         -4.22e-02 4.11e-03 7.58e-02 0.994
## 1902
                     1.74e-02 -2.82e-03
                                                   1.26e-02 7.66e-02 0.998
         1.27e-02
                                         -3.43e-02
        -9.01e-03
                   -2.62e-03 1.11e-02
                                         -1.87e-02 9.90e-03 3.29e-02 1.004
## 1903
                                          2.75e-02 1.75e-02 -1.09e-01 0.999
## 1904
        -2.22e-02
                     2.73e-03 -5.72e-03
## 1905
         3.14e-04
                     2.39e-03 -4.01e-03
                                          2.43e-03 -1.02e-03 -1.10e-02 1.007
## 1906
        -9.01e-05
                     1.77e-03 -3.71e-03
                                         -4.05e-03
                                                   2.86e-03 1.48e-02 1.009
## 1907
          1.16e-03
                   -1.37e-03 -1.65e-03
                                         -1.22e-03
                                                   9.01e-05
                                                             3.76e-03 1.008
## 1908
         6.59e-03
                   -3.91e-03 -9.17e-04
                                         -4.22e-03
                                                   2.40e-03
                                                             1.89e-02 1.009
## 1909
        -9.77e-05
                   -1.49e-04 6.34e-03
                                          4.77e-04
                                                   3.79e-03
                                                             1.23e-02 1.006
## 1910
          6.20e-04
                   -1.68e-03 -1.14e-02
                                         -7.74e-03 5.45e-03 2.47e-02 1.005
## 1911
         8.62e-03
                     5.06e-03 -3.14e-02
                                          1.44e-03 -1.39e-02 -5.37e-02 1.005
## 1912
        -1.14e-02
                     1.43e-02 -2.54e-02
                                         -3.79e-02 -3.80e-02 7.58e-02 1.007
## 1913
         1.22e-02
                   -7.90e-03 8.23e-03
                                         -9.83e-03 -3.12e-03
                                                             3.09e-02 1.011
## 1914
                   -3.69e-02 2.02e-02
        -1.45e-02
                                         -6.74e-02 1.38e-02 1.39e-01 0.998
## 1915
         6.29e-03
                     3.96e-03 -1.58e-02
                                          1.58e-02 -1.64e-02 -4.43e-02 1.004
                   -2.48e-02 3.46e-02
## 1916
         1.49e-02
                                          1.04e-01 7.38e-02 -1.80e-01 1.008
## 1917
         4.90e-04
                     1.86e-03 1.08e-03
                                          6.34e-04 3.75e-04 8.19e-03 1.006
## 1918
        -4.63e-03
                   -4.09e-03 7.50e-03
                                         -5.55e-03 -1.10e-02 2.28e-02 1.013
        -2.00e-03
                     5.63e-03 -2.21e-03
                                          7.03e-03 3.46e-03 -1.59e-02 1.008
## 1919
                                          1.21e-02 1.19e-02 4.84e-02 1.001
                   -1.86e-02 3.67e-02
## 1920
         1.19e-02
## 1921
                                          9.20e-03 -1.35e-02 -5.58e-02 1.003
          5.74e-03
                   -2.16e-02 2.12e-02
## 1922
         8.10e-03
                     2.21e-02 3.66e-02
                                         -3.86e-03
                                                   2.05e-02 8.21e-02 1.001
## 1923
        -1.58e-02
                   -1.84e-02 -1.28e-02
                                         -8.47e-02
                                                   5.18e-03 9.49e-02 0.999
## 1924
         1.46e-05
                   -4.39e-04 6.23e-05
                                          6.06e-04
                                                   2.37e-04 -1.38e-03 1.006
## 1925
        -6.64e-03
                     3.46e-02 1.35e-02
                                         -2.13e-02
                                                   1.70e-03 8.50e-02 1.007
                     2.02e-02 -1.54e-02
                                                   1.53e-02
                                                             4.99e-02 1.003
## 1926
         9.89e-03
                                         -9.05e-03
## 1927
        -4.99e-03
                   -9.74e-04 -2.01e-02
                                         -1.72e-02
                                                    6.79e-03
                                                              3.08e-02 1.008
## 1928
        -9.84e-04
                     4.50e-03 -4.06e-03
                                         -1.81e-02
                                                   1.23e-02
                                                              3.14e-02 1.003
## 1929
        -2.57e-02
                   -2.63e-02 2.05e-02
                                         -9.97e-03
                                                    2.40e-02
                                                             7.97e-02 1.000
## 1930
         9.25e-04
                   -7.61e-03 6.06e-03
                                         -4.75e-03
                                                   1.32e-03
                                                             1.31e-02 1.007
                     4.17e-03 -2.06e-04
## 1931
        -7.30e-04
                                         2.79e-03 -2.44e-04 -6.53e-03 1.007
## 1932
         1.48e-02
                   -1.74e-02 2.54e-02
                                        -4.53e-02 -1.69e-02 9.46e-02 1.002
## 1933
         8.38e-03
                   -1.52e-02 -1.81e-02 -1.07e-02 -5.05e-04 -4.00e-02 1.012
## 1934 -4.32e-03 -2.84e-03 3.81e-03 -8.43e-03 2.05e-03 1.65e-02 1.004
```

```
## 1935
        -2.71e-03
                     9.40e-03 -1.05e-02
                                          1.49e-02 -4.91e-03 -2.72e-02 1.006
                     6.80e-03 -3.03e-02
                                         -3.14e-02 4.97e-03 5.19e-02 1.002
## 1936
        -1.96e-02
         -1.16e-03
                                         -5.85e-03 -2.36e-03 1.40e-02 1.006
## 1937
                     7.42e-03 -3.31e-03
## 1938
        -1.70e-02
                    -3.17e-03 -1.53e-02
                                          2.10e-02 1.63e-03 -6.34e-02 1.005
## 1939
         -2.51e-02
                    -1.45e-03 -9.43e-03
                                          2.41e-03 -8.35e-03 -5.83e-02 1.004
## 1940
        -1.95e-03
                                         -1.95e-02 7.45e-03 2.94e-02 1.005
                     7.19e-05 -1.01e-03
## 1941
          8.89e-04
                     2.28e-03 -5.97e-04
                                          3.17e-03 -1.09e-03 -5.82e-03 1.009
                                          2.99e-01 2.29e-01 -5.88e-01 0.953
## 1942
          1.08e-01
                     1.70e-01 -1.13e-01
## 1943
          9.69e-04
                    -1.53e-04 -9.12e-04
                                         -3.13e-03 6.27e-04
                                                              4.67e-03 1.006
## 1944
        -9.13e-04
                    -1.02e-03 -2.26e-03
                                         -2.28e-03 -1.69e-03
                                                              6.32e-03 1.006
## 1945
          9.29e-02
                     6.41e-03 -3.34e-03
                                         -1.61e-02 -5.98e-03
                                                              1.08e-01 1.048
## 1946
        -2.82e-03
                     2.09e-03 -6.06e-03
                                         -1.11e-02 4.58e-03
                                                              2.06e-02 1.013
## 1947
         -4.17e-03
                    -1.42e-02 -1.86e-03
                                         -1.82e-02 -3.54e-02
                                                             4.49e-02 1.007
## 1948
        -2.51e-02
                     4.35e-03 -2.95e-02
                                         -1.77e-02 -2.23e-02 -6.66e-02 1.006
## 1949
                    -1.30e-02 -1.29e-02
                                         -3.53e-02 7.07e-03 6.32e-02 1.001
          2.34e-02
## 1950
          4.17e-03
                     1.02e-03 2.44e-03
                                          9.17e-03 -6.62e-03 -1.65e-02 1.004
## 1951
        -2.92e-04
                     7.99e-04 -2.12e-03
                                          8.96e-04 -1.19e-03 -5.27e-03 1.006
## 1952
        -3.97e-03
                    -1.06e-03 -3.08e-04
                                         -6.81e-03
                                                   1.73e-03 1.09e-02 1.006
## 1953
        -6.43e-03
                    -1.94e-03 -7.78e-03
                                         -2.80e-02
                                                   1.31e-02 4.74e-02 1.007
## 1954
         4.89e-03
                     4.19e-03 -2.11e-03
                                          1.24e-02
                                                    1.79e-02 -3.64e-02 1.010
## 1955
        -5.71e-03
                     9.07e-03 1.88e-02
                                         -1.25e-02
                                                    1.27e-02 4.65e-02 1.005
## 1956
         -8.82e-03
                    -6.58e-03 1.29e-02
                                         -3.00e-02 2.18e-03 5.50e-02 1.002
         -6.69e-04
## 1957
                     1.44e-03 -8.67e-04
                                         -1.36e-03 -1.60e-03 -5.75e-03 1.007
## 1958
          3.20e-01
                     4.48e-02 -9.73e-02
                                         -1.11e-01 -1.37e-02
                                                              3.90e-01 0.985
## 1959
          2.33e-02
                     1.93e-02 -2.26e-04
                                         -1.27e-02 -3.14e-04
                                                              6.76e-02 0.998
## 1960
        -4.23e-03
                    -9.72e-03 1.98e-02
                                         -1.46e-02 -7.93e-04
                                                              4.20e-02 1.004
## 1961
                    -6.22e-03 -4.30e-03
                                         -2.76e-02 1.26e-02
                                                              3.83e-02 1.005
         -1.21e-02
## 1962
        -1.28e-02
                     6.18e-02 -6.13e-02
                                         -7.08e-02 5.97e-03
                                                              1.78e-01 0.988
## 1963
         7.39e-03
                    -2.82e-03 1.45e-02
                                          1.71e-02 -6.61e-03 -2.88e-02 1.004
## 1964
        -1.02e-04
                     1.09e-03 -4.05e-03
                                         -1.05e-02 -7.60e-04 1.37e-02 1.008
                                                   7.45e-02 -3.64e-01 0.990
## 1965
          3.24e-02
                    -6.32e-02 9.94e-02
                                          2.21e-01
## 1966
          1.47e-02
                     1.32e-02 1.53e-02
                                         -2.88e-02
                                                    1.94e-02 7.60e-02 1.003
## 1967
          1.41e-03
                     1.82e-02 -3.39e-02
                                         -2.13e-02
                                                   9.77e-03 5.71e-02 1.003
## 1968
        -7.51e-03
                    -4.04e-03 2.10e-03
                                          4.78e-03 1.46e-04 -1.24e-02 1.015
  1969
         9.87e-03
                    -3.49e-02 -6.04e-02
                                         -4.01e-02 -3.52e-02 -1.18e-01 0.993
                                          4.19e-03 -2.21e-04 -8.07e-03 1.006
## 1970
        -5.44e-04
                     6.36e-04 8.70e-04
## 1971
          8.83e-03
                    -1.09e-02 -8.41e-03
                                         -1.22e-02 -3.40e-04 3.52e-02 1.004
## 1972
        -1.61e-03
                     5.07e-03 -3.75e-03
                                          6.76e-03 -2.86e-03 -1.45e-02 1.008
         -1.12e-02
                    -2.31e-02 1.11e-02
                                         -3.96e-02 6.08e-03 7.36e-02 1.005
## 1973
                                          1.16e-03 -3.97e-03 -1.77e-02 1.008
## 1974
        -1.14e-02
                    -6.75e-03
                              1.76e-03
## 1975
        -5.14e-03
                     1.50e-02
                              2.60e-03
                                          1.58e-02 1.08e-03 -3.14e-02 1.006
## 1976
          1.32e-03
                     5.28e-03
                              3.64e-03
                                          1.75e-02 -8.79e-03 -2.81e-02 1.006
## 1977
         -3.91e-03
                     3.76e-03
                              1.06e-02
                                          1.32e-03 7.08e-03 2.30e-02 1.006
## 1978
        -3.61e-03
                     1.78e-02 -8.42e-03
                                         -1.85e-02 3.08e-03 3.22e-02 1.004
## 1979
          3.95e-01
                     4.03e-02 -1.04e-02
                                          1.13e-02 -8.15e-03 4.46e-01 1.014
## 1980
                     5.15e-03 4.64e-03
                                          1.20e-02 -7.08e-03 -2.94e-02 1.007
          2.05e-03
## 1981
          1.37e-02
                    -1.80e-02 2.45e-03
                                          3.65e-02 -2.32e-02 -9.45e-02 1.001
## 1982
         -3.47e-03
                     9.02e-04 -5.84e-04
                                         -1.07e-02 2.22e-03 1.38e-02 1.006
## 1983
          7.16e-04
                     6.50e-03 -6.92e-03
                                          1.21e-02 -1.39e-03 -2.46e-02 1.004
## 1984
          2.38e-03
                    -7.84e-03 3.40e-02
                                          2.23e-03 -2.72e-02 -7.09e-02 1.007
## 1985
                     5.86e-03 -1.19e-02
                                         -1.22e-02 8.39e-04 2.33e-02 1.009
        -6.68e-03
## 1986
        -4.29e-05
                     1.85e-04 -8.02e-04
                                         -2.56e-05 2.17e-04 2.46e-03 1.005
## 1987
          1.66e-03
                   -6.17e-04 -2.28e-03
                                        -2.54e-04 -1.35e-03 -6.70e-03 1.005
                   -6.36e-05 -9.89e-05 -3.20e-05 5.33e-05 2.22e-04 1.007
## 1988
        -3.31e-05
```

```
## 1989
         -1.80e-02
                     2.40e-03 -4.45e-02 -3.81e-02 2.00e-02 8.36e-02 0.996
                                          6.14e-04 -3.05e-03 -9.13e-03 1.005
## 1990
          1.54e-03
                    -2.08e-03 -2.35e-03
## 1991
         -7.20e-03
                    -1.33e-02 1.76e-02
                                         -8.98e-03 1.71e-02 5.09e-02 0.998
## 1992
        -1.32e-04
                     4.92e-04 -8.56e-04
                                         -9.47e-04 -2.19e-03 4.38e-03 1.011
## 1993
          4.14e-03
                     4.29e-03 -8.93e-03
                                         -3.47e-03 -2.81e-03 -2.01e-02 1.006
## 1994
                                          1.22e-03 -1.46e-03 -1.49e-02 1.007
          2.09e-03
                    -4.18e-03 1.20e-02
## 1995
         -3.65e-03
                     4.63e-04 2.86e-03
                                          5.29e-03 -4.79e-02 6.00e-02 1.005
                                          1.11e-04 2.34e-04 -3.33e-04 1.009
## 1996
          4.35e-06
                     2.50e-05 -5.27e-06
## 1997
          4.70e-03
                    -2.31e-02 3.65e-04
                                         -3.04e-03
                                                    2.23e-03
                                                              3.21e-02 1.005
## 1998
         -1.98e-03
                    -1.50e-03 -2.18e-03
                                         -3.03e-03
                                                   2.50e-03
                                                              9.75e-03 1.006
## 1999
         -1.01e-02
                     6.24e-04 -3.39e-03
                                          1.55e-03 -1.12e-02
                                                              5.76e-02 0.997
## 2000
                     5.10e-03 -1.49e-02
         -5.58e-03
                                         -7.62e-04 -1.44e-03
                                                               3.12e-02 1.007
## 2001
         -2.07e-02
                     1.71e-02 -3.34e-02
                                         -6.72e-02 2.80e-02
                                                              9.27e-02 0.994
## 2002
         -4.94e-04
                     6.83e-05 1.77e-04
                                         -4.66e-04 4.74e-04
                                                              1.48e-03 1.005
## 2003
          9.55e-04
                     7.33e-04 -2.04e-03
                                         -1.40e-03 -3.61e-05 -4.38e-03 1.005
## 2004
         -1.88e-04
                     1.29e-03
                              1.64e-03
                                          7.79e-04
                                                    1.55e-03
                                                               4.41e-03 1.005
## 2005
         -1.30e-02
                     1.43e-02 -6.03e-02
                                         -2.50e-02
                                                    1.75e-03
                                                              8.11e-02 0.991
## 2006
         -6.93e-04
                     1.19e-03
                               3.86e-03
                                          3.02e-03
                                                    7.32e-04
                                                              7.45e-03 1.006
## 2007
         -2.71e-04
                     1.00e-03
                               1.01e-03
                                         -6.22e-04
                                                    2.74e-03
                                                              8.05e-03 1.006
## 2008
         -3.33e-03
                    -3.91e-03
                               2.20e-02
                                          6.92e-03
                                                   5.89e-03
                                                              2.96e-02 1.005
## 2009
         -2.78e-02
                    -1.07e-02 6.39e-03
                                         -3.23e-02 -7.70e-02 1.16e-01 1.002
## 2010
                     2.80e-02 -4.38e-02
                                         -9.71e-03 -1.91e-02 -7.41e-02 0.989
          1.33e-02
## 2011
                     3.15e-02
        -9.94e-03
                              1.52e-04
                                         -5.90e-03 2.50e-02 6.34e-02 0.999
## 2012
         -2.31e-02
                    -1.55e-02
                               1.18e-02
                                          2.58e-02 1.95e-02 1.35e-01 0.994
## 2013
          2.08e-03
                     4.57e-03
                              3.55e-03
                                          7.30e-03 -2.71e-03 -1.39e-02 1.006
## 2014
        -8.38e-03
                    -8.95e-03 -8.53e-03
                                         -2.60e-02 2.82e-03
                                                              3.45e-02 1.005
## 2015
                    -6.89e-03
                              1.02e-02
         -6.75e-03
                                         -5.61e-04
                                                    1.13e-02
                                                              3.64e-02 1.000
## 2016
         -2.79e-02
                    -1.88e-02 3.81e-03
                                         -4.55e-02 -7.08e-02
                                                              1.54e-01 0.983
                                         -3.76e-03 6.89e-04
## 2017
         -4.84e-03
                     4.01e-03 4.49e-03
                                                              1.62e-02 1.005
## 2018
          1.48e-02
                    -1.07e-02 1.53e-02
                                          1.95e-02 -1.32e-02 -5.06e-02 0.996
## 2019
          2.28e-03
                     8.78e-03 -8.38e-03
                                          6.20e-03 -6.47e-03 -3.74e-02 1.002
## 2020
         -5.88e-03
                    -6.04e-03 5.87e-03
                                         -1.78e-02 9.91e-03 3.27e-02 1.007
## 2021
         -1.75e-02
                    -4.07e-02
                              3.65e-02
                                         -2.47e-02 -6.89e-02 9.86e-02 1.001
## 2022
         -4.60e-02
                     2.88e-02 -3.52e-02
                                         -1.55e-02 9.22e-03 1.40e-01 0.987
## 2023
          3.88e-04
                     4.65e-04
                               7.58e-04
                                         -1.99e-04 -2.70e-04 -2.22e-03 1.009
## 2024
                                          2.87e-03 8.73e-03 -1.47e-02 1.009
          1.62e-03
                     1.24e-03 1.13e-03
## 2025
         -6.10e-04
                     2.15e-03 -1.40e-03
                                          9.54e-04 -6.51e-04 4.54e-03 1.006
## 2026
          3.44e-04
                     5.18e-05 -4.81e-04
                                         -7.36e-04 -1.06e-02 1.82e-02 1.009
## 2027
         -3.25e-02
                    -7.74e-02
                               6.28e-02
                                         -3.55e-03 -7.81e-02
                                                              1.53e-01 0.992
                                          3.59e-03 -7.12e-04 8.41e-03 1.005
## 2028
         -1.67e-03
                     1.98e-03 3.37e-03
## 2029
          6.15e-03
                     3.04e-03 -6.30e-03
                                         -1.57e-02 1.29e-02 5.36e-02 0.994
## 2030
          4.69e-03
                    -8.36e-04 6.57e-03
                                         -2.02e-03 -4.99e-03 -2.03e-02 1.007
## 2031
          1.88e-03
                     5.31e-03 -2.39e-02
                                         -7.28e-03 -6.25e-03 -2.98e-02 1.006
## 2032
          6.90e-04
                     1.32e-03 4.67e-04
                                         -3.13e-04 1.52e-03 -4.30e-03 1.006
## 2033
         -5.54e-03
                     1.11e-02 -9.49e-03
                                          1.38e-03 6.18e-03 2.66e-02 1.005
## 2034
         -3.26e-05
                     1.37e-04 2.95e-04
                                          1.35e-04 -2.21e-05
                                                              1.85e-03 1.009
## 2035
         -5.65e-03
                    -1.33e-02 -2.40e-02
                                         -3.02e-02 -6.90e-02
                                                              9.60e-02 1.005
## 2036
         -2.87e-02
                     5.37e-02 -4.02e-02
                                         -1.39e-02 1.68e-03
                                                              1.18e-01 0.981
## 2037
         -1.70e-03
                     1.08e-04 -1.04e-04
                                         -7.22e-04
                                                    1.94e-03
                                                              6.01e-03 1.005
## 2038
         -2.67e-03
                     1.01e-02 6.97e-03
                                          1.20e-02
                                                    5.49e-03
                                                              3.04e-02 1.001
## 2039
          1.18e-03
                     4.64e-04 -1.98e-03
                                          1.06e-03
                                                    1.11e-02 -1.54e-02 1.008
## 2040
        -1.23e-02
                     3.32e-02 -6.79e-02
                                         -6.00e-02 -8.66e-02 1.47e-01 0.994
## 2041
         -4.40e-04
                     7.81e-04 -6.23e-04
                                          2.86e-04 -8.86e-04 2.63e-03 1.006
## 2042
          4.79e-04
                     1.48e-03 -1.41e-03
                                          9.24e-04 5.77e-03 -8.92e-03 1.009
```

```
## 2043
        -1.31e-02
                     1.04e-02 3.79e-03
                                          3.79e-02 3.94e-03 7.52e-02 0.996
                                                   9.65e-03 2.88e-02 1.004
## 2044
                    -4.47e-03
        -2.63e-03
                              1.07e-02
                                          1.64e-03
                     5.02e-03
                                                    2.99e-03 -1.58e-02 1.006
## 2045
          2.89e-03
                              1.64e-03
                                          4.60e-04
## 2046
          2.12e-02
                    -2.22e-02 -1.95e-02
                                          1.68e-02
                                                   6.36e-03 7.04e-02 0.993
## 2047
         -2.92e-02
                    -1.58e-03 -1.03e-02
                                         -4.49e-02 -1.10e-01
                                                              1.40e-01 0.997
## 2048
        -4.67e-02
                    -4.93e-02 4.18e-02
                                         -7.60e-02 4.37e-03
                                                             1.37e-01 1.005
## 2049
        -2.76e-03
                    -1.26e-04 5.80e-03
                                          9.99e-04 6.14e-03
                                                              1.44e-02 1.005
## 2050
        -5.00e-03
                     2.10e-02 3.30e-05
                                          1.06e-02 -3.77e-02 8.09e-02 1.004
## 2051
          1.94e-02
                     8.36e-03 -1.45e-02
                                          3.52e-02 -1.50e-02 -7.68e-02 0.989
## 2052
        -9.29e-03
                    -1.06e-02 -1.82e-03
                                         -1.67e-02 1.36e-02 4.05e-02 1.001
## 2053
        -4.06e-04
                     2.50e-03 -1.33e-03
                                         -9.40e-04
                                                    1.51e-03 6.31e-03 1.008
## 2054
                    -2.23e-02 2.25e-02
                                         -5.26e-04 6.87e-03 3.73e-02 1.004
          3.23e-03
## 2055
          1.15e-03
                     2.89e-03 4.87e-03
                                          9.87e-03 -2.81e-03 -1.28e-02 1.006
## 2056
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          8.55e-03
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## 2057
                    -8.21e-03 -2.13e-03
                                         -2.31e-02 8.28e-03 4.07e-02 1.002
         -1.47e-02
## 2058
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                                         -4.19e-04 -5.22e-05 -5.28e-03 1.005
                                         -4.72e-03 -3.34e-02 5.56e-02 1.006
## 2059
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                     1.53e-02 -1.78e-02
## 2060
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                     4.31e-03 -1.21e-03
                                         -1.99e-02 -4.22e-02 8.01e-02 1.004
## 2061
                                          1.96e-02 -1.03e-02 -4.96e-02 1.003
          1.16e-02
                    -2.60e-02 -4.56e-03
## 2062
         -8.87e-03
                     4.43e-03 -1.42e-02
                                         -5.28e-04 9.31e-03 4.99e-02 1.003
## 2063
          4.41e-05
                     8.39e-05 -1.58e-05
                                          3.93e-04 8.38e-04 -1.13e-03 1.009
## 2064
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                                         -1.44e-03 1.88e-02 4.94e-02 1.010
## 2065
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          8.25e-03
                    -1.33e-01
                                          2.27e-01 -1.34e-01 -4.07e-01 0.979
## 2066
          1.39e-01
                              9.37e-02
                                          1.07e-01 -4.45e-02 -1.48e-01 1.002
## 2067
          4.39e-02
                    -1.91e-02 5.72e-02
## 2068
          1.16e-04
                    -2.04e-05 -4.87e-04
                                         -1.50e-04 -1.88e-05 -6.38e-04 1.009
## 2069
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          3.61e-03
## 2070
          5.07e-03
                     1.32e-02 -3.54e-03
                                          5.24e-03 6.10e-04 -2.13e-02 1.004
## 2071
                                          5.19e-02 -3.05e-02 -1.02e-01 0.994
          2.72e-02
                    -2.88e-02 3.03e-02
## 2072
          5.48e-03
                    -4.59e-02 2.96e-02
                                          2.03e-02 -6.59e-03 7.35e-02 1.000
## 2073
         -8.57e-04
                     3.03e-03 -7.31e-03
                                         -3.47e-03 -1.21e-03 1.40e-02 1.006
## 2074
         -4.75e-03
                    -2.40e-02 2.83e-02
                                         -1.83e-05 6.50e-03 4.30e-02 1.007
## 2075
          5.90e-03
                    -1.69e-03
                              1.22e-02
                                          1.69e-02 9.76e-03 -3.56e-02 1.005
## 2076
                    -2.19e-03
                                          5.10e-02 -1.38e-03 -8.50e-02 0.990
          8.77e-03
                               3.33e-03
## 2077
          1.08e-02
                     1.38e-02
                               2.77e-02
                                          5.37e-03
                                                    4.22e-03 -5.81e-02 1.003
## 2078
          2.68e-02
                    -1.07e-02 2.79e-02
                                          5.74e-02 2.48e-02 -8.55e-02 1.012
## 2079
         -2.56e-03
                     5.50e-02 -5.18e-02
                                         -6.62e-02 4.03e-02 1.58e-01 1.002
## 2080
          1.23e-02
                    -2.61e-02 1.23e-02
                                          4.82e-03 -2.56e-02 -1.37e-01 0.991
## 2081
          5.07e-03
                     5.96e-04
                               3.31e-03
                                          6.60e-03 -2.06e-03 -1.71e-02 1.007
## 2082
        -1.62e-03
                                          2.34e-03 -6.43e-04 2.87e-02 1.004
                     1.18e-02 6.65e-04
## 2083
                                         -9.07e-04 2.79e-04 2.34e-03 1.010
          3.25e-05
                     1.09e-03 -1.50e-03
## 2084
          2.17e-04
                    -1.82e-05 -4.96e-04
                                          3.95e-04 3.79e-04 1.47e-03 1.007
## 2085
        -1.28e-03
                    -3.32e-04 6.15e-03
                                         -3.81e-03 -3.34e-03 -1.24e-02 1.006
## 2086
        -3.96e-03
                    -1.78e-02 1.78e-02
                                          4.29e-03 6.74e-03 -3.23e-02 1.007
## 2087
         -4.93e-03
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                                          4.49e-04 -1.56e-04 2.02e-03 1.006
## 2088
                    -8.75e-04 -2.09e-04
          1.14e-04
## 2089
         -4.69e-03
                    -1.73e-02 8.30e-03
                                         -7.02e-03 -2.83e-03 -4.09e-02 1.007
## 2090
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                    -6.89e-02 1.48e-02
                                         -2.65e-02 -6.16e-03 -1.03e-01 1.001
## 2091
         -3.48e-04
                     2.54e-03 4.25e-03
                                         -1.19e-03 -2.29e-03 -1.18e-02 1.006
                                          3.99e-04 -9.21e-04 2.85e-03 1.006
## 2092
          1.54e-05
                    -5.15e-04 -5.01e-04
## 2093
                    -1.91e-03 1.52e-04
                                          1.43e-03 -1.76e-04 4.21e-03 1.006
          1.02e-03
## 2094
        -1.33e-03
                     2.70e-03 3.58e-03
                                         -5.93e-03 -2.70e-03 -1.70e-02 1.005
## 2095
          2.42e-04
                     1.35e-02 -1.21e-02 -1.99e-03 -2.64e-03 -2.45e-02 1.005
## 2096
          5.00e-03
                     3.26e-02 -2.30e-02 -1.38e-03 -6.76e-04 -5.01e-02 1.000
```

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## 2097
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## 2098
        -7.52e-03
                    -8.06e-03 7.41e-03
## 2099
        -3.49e-03
                     3.33e-03 1.12e-04
                                         -1.34e-03 -1.13e-03 -7.80e-03 1.006
## 2100
        -6.24e-04
                     8.42e-04 -6.30e-03
                                         -1.30e-02 4.27e-03 -3.89e-02 1.000
## 2101
          5.21e-03
                     8.21e-03 6.75e-03
                                         -7.79e-03 -2.82e-03 -4.18e-02 1.012
## 2102
                     5.33e-03 3.91e-03
                                         -2.77e-07 -2.42e-04 -1.22e-02 1.005
        -1.71e-03
                                         -1.23e-03 -2.34e-05 -1.61e-02 1.005
## 2103
        -1.27e-03
                     8.06e-03 7.02e-04
                                         -6.21e-04 -1.85e-04 -2.67e-03 1.006
## 2104
        -2.53e-04
                     6.33e-04 -9.91e-04
## 2105
        -2.02e-03
                     4.40e-03 -1.83e-03
                                         -3.80e-03 2.51e-04 -1.73e-02 1.004
## 2106
        -3.15e-02
                    -7.06e-03 1.29e-02
                                         -3.10e-03 5.38e-03 -5.06e-02 1.006
## 2107
        -3.99e-03
                     3.19e-03 -4.38e-03
                                         -4.30e-03 3.41e-03 -4.90e-02 1.003
## 2108
                     7.61e-04 7.72e-03
                                          2.27e-02 -8.24e-04 -2.67e-02 1.006
          5.68e-03
## 2109
          2.16e-03
                    -3.05e-04 -1.83e-03
                                         -8.01e-04 9.82e-04 4.15e-03 1.006
                    -1.05e-03 1.88e-03
## 2110
        -6.79e-04
                                          2.64e-05 -1.18e-03 -4.14e-03 1.005
## 2111
        -2.38e-02
                    -4.83e-02 5.39e-03
                                          1.05e-02 -3.17e-02 -8.28e-02 0.999
## 2112
          8.38e-03
                     1.05e-02 -1.21e-02
                                         -8.11e-03 3.21e-02 -6.01e-02 1.008
                                          1.10e-02 -1.69e-02 -4.10e-02 1.004
## 2113
        -9.08e-03
                    -1.84e-02 1.54e-02
## 2114
          2.35e-03
                    -2.46e-02
                              3.62e-02
                                          2.80e-02 -1.49e-02 -5.15e-02 1.005
## 2115
                                          3.43e-03 -5.06e-03 -1.55e-02 1.006
        -1.10e-03
                   -1.86e-03 3.44e-03
## 2116
          1.98e-02
                    -2.76e-03 -1.05e-02
                                         -8.62e-03 4.11e-02 -9.52e-02 1.003
## 2117
        -4.57e-03
                     8.61e-03 3.01e-03
                                         -1.08e-02 3.91e-02 -6.27e-02 1.004
## 2118
        -1.31e-03
                   -2.92e-03 1.22e-03
                                         -3.83e-04 -2.68e-03 -1.11e-02 1.006
## 2119
                     2.08e-02 1.19e-02
                                          2.08e-02 1.05e-03 -3.59e-02 1.004
          5.46e-03
                                          1.66e-03 -5.01e-03 -1.34e-02 1.006
## 2120
        -2.65e-03
                     1.31e-03 -5.02e-04
## 2121
        -2.35e-03
                   -7.40e-03 -1.77e-03
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## 2122
          3.20e-03
                    -4.65e-03 1.68e-03
                                         -2.48e-03 4.66e-03 1.57e-02 1.005
## 2123
                    -1.97e-02 1.35e-02
                                         -3.38e-03 3.05e-03 -3.82e-02 1.005
         7.22e-03
## 2124
         1.09e-04
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                                         -3.45e-03 7.13e-04 7.01e-03 1.006
## 2125
                   -2.06e-03 2.04e-03
                                          5.98e-04 -2.10e-03 -5.36e-03 1.007
        -1.07e-06
## 2126
         2.91e-03
                     1.54e-03 -1.52e-03
                                         -5.10e-04 1.98e-03 8.02e-03 1.005
                    -1.61e-02 1.46e-02
## 2127
        -1.25e-02
                                          4.14e-03 -5.22e-03 -3.91e-02 1.002
## 2128
          1.01e-04
                    -5.68e-03 1.48e-02
                                          1.29e-02 1.64e-02 -2.75e-02 1.010
## 2129
        -1.97e-03
                     5.85e-03 -1.26e-02
                                          1.07e-03 9.74e-03 2.20e-02 1.007
## 2130
        -4.78e-03
                                          2.03e-02 -2.67e-02 -8.88e-02 1.000
                   -2.32e-02 -1.04e-03
## 2131
         -2.66e-04
                     3.04e-04 -7.83e-04
                                         -3.55e-04 9.28e-04
                                                             1.98e-03 1.006
                                         -5.07e-03 -1.82e-02 2.52e-02 1.007
## 2132
         9.92e-05
                   -4.80e-03 -4.93e-03
## 2133
          1.85e-04
                   -1.85e-04 -2.53e-05
                                          4.70e-05 -1.18e-04 -9.29e-04 1.006
## 2134
        -2.46e-03
                    -2.24e-03 5.85e-04
                                          3.10e-03 2.00e-03 1.72e-02 1.007
## 2135
        -2.19e-02
                     1.59e-02 2.37e-02
                                         -1.33e-02 -2.82e-03 6.65e-02 0.997
        -1.08e-03
                                          3.56e-03 5.54e-04 -5.48e-03 1.006
## 2136
                     1.30e-03 2.54e-03
                                         -2.67e-03 -7.25e-03 -2.67e-02 1.003
## 2137
          1.25e-03
                   -3.42e-03 -8.00e-03
## 2138
        -9.54e-03
                   -1.18e-02 -4.81e-06
                                         -3.20e-03 -2.56e-03 -2.37e-02 1.004
## 2139
        -4.21e-02
                   -1.08e-02 8.28e-03
                                         -1.30e-03 3.51e-02 -6.70e-02 1.006
## 2140
         7.43e-04
                     4.19e-03 -5.34e-05
                                         -2.47e-03 1.61e-02 -3.00e-02 1.009
## 2141
        -1.68e-03
                     2.35e-03 4.60e-04
                                         -2.02e-03 -6.40e-03 -1.57e-02 1.004
                                         -1.00e-03 5.69e-04 3.75e-03 1.006
## 2142
                     1.20e-03 -1.03e-03
          2.51e-04
## 2143
          2.87e-03
                    -3.08e-03 6.85e-04
                                         -2.21e-03 1.81e-03 1.02e-02 1.005
## 2144
        -5.06e-03
                     1.32e-02 -1.05e-03
                                          1.18e-02 5.21e-03 3.08e-02 1.009
## 2145
          1.41e-02
                   -2.18e-02 9.80e-03
                                          4.27e-02 6.56e-02 -9.51e-02 1.003
## 2146
         -9.49e-04
                    -1.29e-03 5.01e-04
                                         -2.70e-04 -1.00e-03 -5.88e-03 1.006
                   -3.92e-03 -2.79e-03
                                         -1.02e-02 -1.56e-02 -2.73e-02 1.007
## 2147
        -9.05e-03
## 2148
         1.96e-03
                     3.03e-03 1.57e-02
                                         8.67e-03 -7.70e-03 -4.38e-02 1.003
## 2149
          1.14e-03
                     3.59e-03 -1.57e-03 -1.54e-03 8.79e-03 -1.52e-02 1.010
## 2150
        -4.98e-04 -1.07e-03 4.46e-04 -3.95e-04 -6.30e-04 -1.94e-03 1.006
```

```
## 2151
          2.71e-03
                     8.49e-03 1.57e-02
                                          2.08e-02 -5.77e-03 -3.73e-02 1.002
                                          1.78e-02 -1.08e-03 -3.78e-02 0.999
## 2152
        -6.75e-03
                    -1.35e-04 5.45e-03
                    -2.28e-03 6.12e-03
## 2153
          1.65e-03
                                         -2.87e-03 1.00e-02 -2.16e-02 1.010
## 2154
                     2.45e-02 -5.37e-03
                                          1.46e-02 1.24e-02 5.68e-02 1.006
          7.65e-04
## 2155
          7.32e-03
                     1.23e-02 -1.21e-02
                                         -7.28e-03 -5.96e-02
                                                              9.65e-02 1.001
         -1.02e-02
                     4.63e-03 2.27e-02
                                         -3.60e-04 2.08e-02 5.03e-02 1.001
## 2156
## 2157
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                                                    7.81e-04 1.50e-02 1.005
## 2158
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                    -6.82e-04 -1.78e-03
                                          6.09e-04
## 2159
         -9.30e-04
                     1.13e-02 1.16e-03
                                          5.55e-03
                                                   6.92e-03 1.88e-02 1.006
## 2160
          1.79e-03
                    -5.25e-03 -5.30e-03
                                         -2.94e-02 1.81e-02 -7.19e-02 1.011
## 2161
          6.59e-03
                     6.45e-03
                              2.81e-02
                                          1.55e-02 -3.99e-02 1.01e-01 1.004
## 2162
         -1.09e-03
                     4.88e-03
                               5.09e-03
                                         -8.21e-04 -2.75e-03 -1.43e-02 1.007
## 2163
          4.63e-03
                    -6.91e-03
                              4.39e-03
                                          2.51e-02 -9.41e-03 -4.12e-02 1.005
## 2164
          4.22e-03
                     9.43e-03 4.65e-04
                                          7.11e-03 -3.18e-02 8.42e-02 1.006
## 2165
                    -4.84e-02 5.10e-03
                                         -4.79e-03 -4.82e-03
                                                              6.70e-02 0.999
          6.38e-03
## 2166
         -1.02e-03
                     1.44e-02 -5.76e-04
                                          2.03e-02 -3.24e-02
                                                              7.15e-02 1.002
## 2167
          8.09e-03
                    -4.17e-02 7.60e-02
                                          6.68e-03
                                                   7.65e-03
                                                              9.83e-02 0.999
## 2168
         -3.71e-05
                     5.90e-03 -1.35e-04
                                          1.20e-04
                                                    2.65e-03
                                                               1.05e-02 1.007
## 2169
          3.15e-03
                     7.72e-03 6.81e-03
                                          4.90e-03
                                                    3.43e-03
                                                              2.44e-02 1.005
## 2170
         -7.08e-04
                     8.86e-03 -9.04e-03
                                         -5.35e-04
                                                    6.32e-03
                                                              2.19e-02 1.004
## 2171
          2.52e-03
                     2.43e-02 4.19e-03
                                         -5.76e-04
                                                   2.01e-02
                                                              5.70e-02 1.003
## 2172
         -5.41e-04
                     2.95e-03 2.72e-03
                                          3.95e-03 -1.07e-02
                                                              1.44e-02 1.008
## 2173
        -7.72e-04
                     1.18e-02 -8.81e-03
                                         -5.88e-03 5.71e-03
                                                              3.16e-02 1.004
                     5.23e-02 -5.98e-02
## 2174
         -1.78e-02
                                          2.59e-02
                                                    7.06e-03
                                                               1.19e-01 0.971
## 2175
        -3.49e-03
                     8.54e-04 5.53e-03
                                          6.96e-03 8.20e-05
                                                              2.57e-02 1.004
## 2176
          1.24e-02
                     4.89e-02 2.55e-03
                                          3.70e-02 -5.97e-02
                                                              2.29e-01 0.982
## 2177
         -7.32e-05
                     3.81e-03 -4.21e-03
                                          1.60e-03 -2.00e-03 -8.59e-03 1.006
## 2178
         -8.44e-03
                     2.20e-02 4.60e-02
                                          2.83e-03
                                                   3.40e-02
                                                              8.98e-02 1.001
## 2179
                    -8.87e-03 8.64e-03
                                                              2.06e-02 1.003
          7.16e-04
                                          7.79e-03
                                                    6.49e-03
## 2180
          7.35e-03
                     5.70e-04 3.61e-02
                                          1.45e-02
                                                    1.09e-02
                                                               6.07e-02 1.004
## 2181
         -2.88e-03
                    -2.80e-03 -1.81e-03
                                          5.61e-03
                                                    1.56e-02
                                                               3.72e-02 1.002
## 2182
         -1.42e-03
                    -2.16e-04 1.95e-03
                                          1.14e-04
                                                    2.64e-03
                                                               9.21e-03 1.004
## 2183
         -6.42e-03
                    -7.71e-03
                              1.61e-02
                                          1.46e-02 4.47e-03
                                                               5.05e-02 0.996
                                                              5.77e-02 0.999
## 2184
                     3.07e-02 -4.20e-04
                                          1.79e-02 -3.56e-03
        -1.15e-02
## 2185
          3.32e-03
                    -5.01e-03
                              2.76e-02
                                         -2.81e-03 -1.02e-03
                                                               4.39e-02 0.999
                    -6.67e-04 1.24e-03
                                          5.81e-04 -4.92e-04
## 2186
        -6.92e-04
                                                              3.74e-03 1.005
## 2187
        -1.52e-03
                    -7.50e-04 -2.03e-02
                                         -7.04e-03 1.08e-02
                                                               3.16e-02 1.004
## 2188
        -6.74e-03
                    -7.41e-04
                              2.17e-03
                                         -3.37e-03 5.29e-03
                                                               2.42e-02 1.001
## 2189
         -1.62e-03
                     1.90e-03
                               6.74e-04
                                          1.45e-03 -2.03e-03
                                                               6.61e-03 1.008
        -6.83e-03
                               8.90e-04
                                          2.55e-03 -1.39e-02
                                                               3.79e-02 1.003
## 2190
                    -3.81e-05
## 2191
         -2.94e-03
                    -5.32e-03
                               1.04e-02
                                          2.17e-03 -2.89e-03
                                                               1.76e-02 1.006
## 2192
         -9.82e-04
                     1.19e-03
                               1.48e-03
                                          9.78e-04 -1.70e-03
                                                              5.18e-03 1.006
## 2193
        -2.59e-04
                    -1.00e-03
                              1.02e-03
                                         -1.28e-04 3.04e-04
                                                              2.65e-03 1.006
## 2194
          1.22e-03
                     4.52e-03 -4.91e-03
                                         -4.60e-03 -1.98e-03 -9.74e-03 1.005
## 2195
         -6.17e-03
                    -1.07e-03 -7.14e-03
                                         -6.87e-03 -7.64e-03
                                                              3.65e-02 1.001
                                          5.61e-03 3.63e-03
## 2196
                    -3.09e-04 3.07e-02
          1.66e-02
                                                              5.86e-02 0.995
## 2197
         -6.18e-03
                     2.05e-02
                               8.99e-04
                                          4.12e-03 -1.02e-02 5.33e-02 0.998
## 2198
         -1.70e-03
                     5.15e-05 5.42e-03
                                          2.32e-03 3.73e-03 1.18e-02 1.006
                     1.11e-02 -4.60e-03
## 2199
          1.67e-03
                                          2.46e-03 -3.71e-03 -2.18e-02 1.003
                    -5.42e-03 1.19e-02
## 2200
         -2.36e-03
                                          4.40e-03 4.91e-03 2.37e-02 1.004
                                          4.25e-04 -3.36e-04 1.58e-03 1.005
## 2201
                     3.14e-04 3.15e-04
         -2.69e-04
## 2202
          4.03e-04
                     7.98e-04 6.95e-04
                                          4.91e-04 -4.19e-04 -3.01e-03 1.006
## 2203
          3.07e-03
                     7.30e-03 3.41e-03
                                         -2.66e-03 -3.38e-03 2.55e-02 1.003
                                          6.38e-02 5.74e-03 -7.89e-02 1.025
## 2204
          2.55e-02
                   -9.82e-03 -1.22e-03
```

```
## 2205
          2.42e-02
                    -8.00e-03 4.48e-03
                                          9.06e-03 5.25e-03 3.57e-02 1.005
## 2206
          1.91e-04
                    -7.47e-04
                              1.41e-03
                                          1.21e-03 6.36e-04
                                                              2.40e-03 1.005
         -5.97e-03
## 2207
                    -7.07e-04
                               1.94e-03
                                         -1.33e-02 -1.41e-03
                                                              2.65e-02 1.002
## 2208
         -7.52e-04
                    -7.16e-03
                              4.64e-03
                                                    2.16e-03
                                                              1.20e-02 1.005
                                          5.36e-04
## 2209
          6.11e-03
                    -3.36e-02
                              6.55e-03
                                          3.52e-03
                                                    1.21e-02
                                                              4.71e-02 1.004
## 2210
                     5.84e-03 -7.06e-03
        -3.95e-03
                                          6.94e-03
                                                   4.41e-03 -2.41e-02 1.005
## 2211
         -6.21e-04
                    -6.14e-03 -5.76e-03
                                         -7.23e-03 -5.86e-04 1.48e-02 1.006
                                          1.47e-03 7.34e-04
## 2212
         -5.54e-04
                    -2.15e-04
                               2.23e-03
                                                              3.42e-03 1.006
## 2213
          1.38e-03
                     3.18e-03
                               1.68e-03
                                         -1.49e-03 -1.95e-03 -1.02e-02 1.012
## 2214
        -1.07e-03
                    -1.29e-03
                               7.34e-04
                                         -1.17e-04 -5.40e-04
                                                              4.69e-03 1.005
## 2215
         -3.82e-03
                     1.16e-02
                               4.65e-03
                                          1.88e-03 -2.80e-03
                                                              3.11e-02 1.002
## 2216
         -5.08e-03
                    -1.83e-02
                               8.72e-03
                                         -1.02e-02 -4.13e-03
                                                              4.31e-02 1.002
## 2217
         -5.93e-03
                    -7.39e-03
                              1.63e-02
                                          2.40e-03 -4.87e-03
                                                              3.55e-02 1.004
## 2218
          3.06e-04
                     6.59e-04 -8.17e-04
                                         -1.38e-03 -6.12e-04
                                                              7.87e-03 1.006
## 2219
                     1.83e-03
                                          5.30e-04 7.21e-03
                                                              2.03e-02 1.003
         -2.22e-03
                              3.54e-03
## 2220
         -5.18e-03
                    -2.47e-03
                              1.85e-02
                                         -8.76e-03 5.92e-03
                                                              3.83e-02 1.002
## 2221
          2.64e-03
                    -1.69e-03 -1.81e-03
                                          4.21e-05 -4.06e-03 -1.05e-02 1.005
## 2222
         -7.62e-03
                     5.97e-03
                              3.89e-02
                                          3.13e-02 7.49e-03
                                                              5.66e-02 1.000
## 2223
         -2.90e-03
                     1.39e-03 5.86e-03
                                          2.98e-03 -6.74e-04
                                                              1.22e-02 1.005
## 2224
         -4.48e-04
                    -1.53e-04 -3.36e-04
                                          1.49e-04 -1.82e-03
                                                              7.04e-03 1.005
## 2225
          2.48e-04
                    -1.14e-03 -2.15e-03
                                         -3.51e-03 4.75e-04 -5.37e-03 1.006
## 2226
                    -2.39e-04 5.95e-04
                                          1.80e-05 8.41e-05
         -1.39e-04
                                                              1.29e-03 1.005
## 2227
                    -5.54e-03
                                          5.24e-03 -1.72e-03
         -1.03e-02
                              3.67e-04
                                                              3.67e-02 1.000
## 2228
         -7.60e-04
                    -1.95e-03
                               2.13e-03
                                         -2.32e-03
                                                   1.05e-03
                                                              6.92e-03 1.005
## 2229
         -7.94e-03
                     9.21e-03
                              1.56e-02
                                          1.23e-02 -7.69e-03
                                                              4.90e-02 0.998
## 2230
        -7.08e-03
                    -2.19e-02 2.54e-02
                                         -1.04e-02
                                                    2.40e-03
                                                              5.65e-02 0.994
## 2231
                    -7.43e-04 -3.11e-05
                                                    3.67e-04
         -5.81e-05
                                          2.68e-04
                                                              1.70e-03 1.005
                    -3.10e-03 2.77e-02
## 2232
         -8.65e-04
                                          1.82e-02 1.10e-02
                                                              5.18e-02 1.002
## 2233
          4.51e-04
                    -1.49e-03 6.00e-04
                                         -5.93e-04 -4.23e-04
                                                              2.97e-03 1.006
## 2234
          1.77e-03
                     1.18e-02 -7.18e-04
                                          6.51e-03 -3.05e-03
                                                              2.04e-02 1.005
## 2235
          1.12e-02
                    -8.93e-03 3.20e-02
                                          1.81e-02 7.17e-03
                                                              6.64e-02 0.999
## 2236
         -3.59e-03
                    -1.52e-03 -1.83e-03
                                          7.48e-05 -3.60e-04
                                                              1.33e-02 1.004
## 2237
         -1.01e-02
                     2.35e-03
                              1.27e-02
                                         -2.04e-03
                                                   1.02e-02
                                                              3.43e-02 0.999
## 2238
                                                              7.73e-02 0.992
         -1.30e-02
                     9.40e-03
                              3.48e-02
                                         -5.31e-03
                                                    1.77e-02
## 2239
          4.00e-03
                     5.15e-03
                              1.43e-03
                                         -2.47e-03 -3.64e-03 -2.30e-02 1.010
## 2240
          1.47e-03
                     5.65e-03 -2.65e-03
                                          1.78e-03 3.19e-03 -1.34e-02 1.005
## 2241
         -1.71e-03
                    -2.05e-03 4.61e-03
                                          4.90e-04
                                                   2.38e-05 8.02e-03 1.005
## 2242
         -2.68e-03
                    -1.24e-02 -2.64e-04
                                          2.60e-03 3.26e-03
                                                              1.93e-02 1.005
         -7.81e-04
                    -2.67e-02 5.55e-03
                                         -7.21e-03 -3.50e-04
                                                              4.08e-02 1.002
## 2243
                                                              2.91e-02 1.004
## 2244
         -3.48e-03
                    -1.15e-02 -8.27e-03
                                         -5.18e-03 7.70e-03
## 2245
         -5.28e-05
                     1.12e-03
                              5.65e-04
                                          4.83e-03
                                                   1.98e-03
                                                              1.11e-02 1.004
## 2246
         -3.02e-04
                     2.57e-03 3.39e-03
                                          4.60e-03 -9.28e-04
                                                              8.61e-03 1.006
## 2247
         -7.59e-04
                     1.82e-03 -8.79e-05
                                          6.65e-04 -8.24e-04
                                                              3.41e-03 1.006
## 2248
        -6.41e-04
                    -1.79e-03 4.23e-03
                                          3.50e-04 8.50e-04
                                                              7.79e-03 1.006
## 2249
         -1.81e-03
                    -1.20e-02 -7.30e-03
                                         -1.66e-02 6.13e-03 2.84e-02 1.003
## 2250
                    -8.37e-04 -5.64e-04
                                         -1.02e-03 9.62e-04 -5.74e-03 1.005
          1.09e-03
## 2251
          1.50e-02
                     1.37e-03 2.56e-02
                                          1.60e-02 -6.49e-03
                                                              5.13e-02 0.996
## 2252
         -1.16e-03
                     1.31e-04 4.71e-03
                                          3.40e-03 -2.79e-03 1.14e-02 1.005
## 2253
         -1.21e-03
                    -1.08e-02 6.34e-03
                                          4.62e-03 -3.02e-03 2.24e-02 1.005
## 2254
         -1.30e-03
                    -1.74e-02 -4.43e-03
                                         -8.72e-03 -1.33e-03 -4.57e-02 1.004
                                         -4.69e-03 -6.53e-04 -3.43e-02 1.000
## 2255
          3.90e-03
                    -5.27e-03 9.03e-03
## 2256
          7.56e-04
                     2.32e-03 3.98e-03
                                          2.96e-03 -6.49e-03 -2.10e-02 1.004
## 2257
          1.63e-04
                   -8.26e-04 -5.44e-03
                                         -7.25e-04 -6.71e-04 1.49e-02 1.006
          9.24e-04 -2.40e-03 -3.14e-03 -4.77e-03 1.89e-03 -9.22e-03 1.006
## 2258
```

```
## 2259
        -2.46e-04
                     3.24e-03 3.93e-03 -1.08e-03 4.01e-04 -9.45e-03 1.006
                                          2.93e-03 -2.31e-03 1.06e-02 1.005
## 2260
        -1.62e-03
                   -4.27e-03
                              8.74e-04
                    -2.08e-02
## 2261
          4.79e-03
                               3.11e-02
                                         -1.41e-02 1.30e-02 -5.82e-02 1.004
## 2262
        -2.84e-03
                     3.31e-04
                               2.14e-03
                                          2.42e-03 -4.48e-03 2.13e-02 1.004
## 2263
         -1.17e-03
                     1.40e-04
                              7.92e-04
                                          1.44e-04 6.53e-04 -8.24e-03 1.007
## 2264
                   -7.31e-03 -6.13e-03
                                         -1.26e-02 2.72e-03 -2.18e-02 1.005
          2.27e-03
                                         -5.99e-03 -7.25e-04 -1.67e-02 1.005
## 2265
        -1.45e-03
                     1.04e-03 -2.23e-03
                                          1.22e-02 -4.49e-03 2.34e-02 1.005
## 2266
        -7.71e-04
                    -6.99e-03 5.58e-03
## 2267
         -8.30e-05
                    -3.95e-02 4.00e-02
                                          3.43e-02 -1.11e-03 8.72e-02 0.991
## 2268
        -5.86e-04
                    -7.10e-03 2.42e-04
                                         -1.78e-02 1.43e-02 -5.34e-02 1.000
## 2269
        -2.43e-03
                     3.76e-02 -7.58e-03
                                         -4.51e-03
                                                   4.98e-03 -5.54e-02 1.000
## 2270
          3.46e-03
                     6.47e-02 -5.24e-02
                                         -2.59e-02
                                                    1.43e-02 -9.59e-02 0.996
## 2271
          8.54e-04
                     3.42e-03 -2.44e-03
                                         -4.38e-03
                                                   3.34e-03 -1.57e-02 1.004
                    -1.70e-02 3.11e-02
## 2272
          3.22e-03
                                          9.38e-03 -9.34e-05 3.82e-02 1.005
## 2273
                     1.59e-03 2.81e-04
                                         -2.56e-04 6.23e-04 -4.02e-03 1.005
        -3.10e-04
## 2274
          2.69e-04
                     6.29e-04 -2.21e-04
                                         -8.06e-04 4.42e-04 -3.75e-03 1.005
                                          9.09e-03 -9.55e-04 2.28e-02 1.004
## 2275
          8.53e-04
                    -1.13e-02 5.71e-03
## 2276
        -9.59e-03
                    -4.43e-03 -5.94e-03
                                         -9.63e-04 6.15e-03 -3.73e-02 1.000
## 2277
                   -1.33e-02 -1.15e-02
          8.64e-03
                                         -2.10e-02 1.96e-02 -6.05e-02 1.002
## 2278
          2.57e-02
                    -1.34e-02 -9.57e-03
                                          4.82e-02 -4.34e-03 -7.27e-02 1.005
## 2279
        -1.16e-02
                     1.48e-02 -2.77e-02
                                         -5.80e-03 2.11e-02 6.28e-02 1.000
## 2280
                   -2.29e-03 1.57e-03
                                         -7.37e-03 4.12e-03 -1.83e-02 1.005
          1.23e-03
## 2281
                     1.50e-02 -3.31e-03
                                         -1.21e-02 -4.44e-03 -3.42e-02 1.002
        -1.65e-03
                                          3.85e-03 1.12e-02 -5.34e-02 1.003
## 2282
         -4.10e-03
                    -6.09e-03
                               2.00e-02
## 2283
        -6.37e-03
                    -6.11e-03
                              3.48e-03
                                          5.59e-03 -2.81e-02 5.75e-02 1.009
## 2284
        -1.08e-02
                    -1.97e-03
                               3.64e-05
                                         -4.77e-03 -2.17e-02 7.97e-02 1.005
## 2285
                     1.06e-02
                                          8.89e-03 -1.81e-02 3.92e-02 1.009
          1.16e-02
                              1.14e-02
## 2286
         7.53e-03
                     1.67e-02 9.74e-03
                                          7.07e-03 6.13e-02 -1.36e-01 1.004
## 2287
                   -4.05e-04 -5.04e-02
          1.87e-02
                                         -3.23e-02 2.37e-02 -1.32e-01 1.009
## 2288
          2.54e-03
                    -1.44e-03 2.15e-03
                                          3.12e-03
                                                   7.42e-03 -1.90e-02 1.009
                                         -4.32e-04 2.69e-03 4.50e-03 1.006
## 2289
         -1.03e-03
                    -9.94e-05
                               5.72e-04
## 2290
          2.29e-03
                    -3.22e-03
                              1.76e-02
                                          2.11e-02 -2.09e-02 -5.16e-02 1.009
## 2291
          2.27e-04
                     1.71e-04
                               8.09e-05
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## 2292
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                                          4.21e-04 -1.93e-04 -1.09e-03 1.014
        -6.51e-05
                              8.13e-04
## 2293
         -1.47e-04
                    -4.57e-04
                              5.46e-04
                                          2.16e-04 -6.51e-04 1.44e-03 1.010
                     5.27e-03 -4.17e-03
                                          8.64e-04 -5.48e-03 -1.90e-02 1.005
## 2294
         4.01e-03
## 2295
          8.37e-03
                   -6.49e-03 1.88e-02
                                          2.43e-02 2.20e-02 -5.16e-02 1.006
## 2296
          1.02e-02
                    -2.89e-02 -1.27e-02
                                         -9.65e-03 -3.70e-02 -7.86e-02 1.010
## 2297
         -7.71e-03
                    -2.62e-02 1.08e-02
                                          9.54e-03 -1.59e-02 -8.98e-02 1.001
                   -1.44e-02 1.61e-03
                                         -2.21e-03 3.18e-02 -4.61e-02 1.005
## 2298
          6.19e-03
## 2299
        -1.37e-02
                   -6.97e-04 -7.42e-04
                                         -9.73e-03
                                                   2.51e-02 5.32e-02 0.995
## 2300
        -5.59e-03
                     1.95e-02 -2.36e-04
                                          1.82e-03 4.06e-03 2.40e-02 1.005
                   -3.51e-05 -6.29e-03
## 2301
          3.57e-03
                                         -6.41e-04 1.89e-02 -3.56e-02 1.007
## 2302
                   -7.34e-05 2.97e-05
                                          1.85e-04 -3.06e-04 7.90e-04 1.010
        -1.17e-04
## 2303
          1.23e-02
                   -1.84e-02 -9.17e-03
                                         -2.05e-02 -4.05e-02 -6.92e-02 1.007
                                         -3.70e-03 5.47e-03 1.01e-02 1.007
## 2304
                     4.45e-03 -1.96e-03
        -8.68e-04
## 2305
          5.13e-03
                     2.70e-03 6.58e-03
                                         -5.24e-03 1.54e-02 -3.60e-02 1.015
## 2306
          1.90e-02
                   -2.32e-02 -4.24e-02
                                         -4.30e-02 6.21e-03 -1.04e-01 1.012
         -9.34e-04
## 2307
                    -6.21e-02 5.56e-02
                                          3.28e-02 -1.91e-02 -8.93e-02 0.997
## 2308
         4.42e-04
                     4.14e-03 -3.66e-03
                                         -6.89e-03 4.26e-03 1.52e-02 1.006
## 2309
                   -6.90e-03 -7.29e-03
                                         -8.98e-03 1.13e-02 -3.26e-02 1.009
          1.23e-03
## 2310
          1.14e-03
                   -1.11e-03 3.20e-03
                                          2.58e-03 -5.60e-03 1.12e-02 1.009
## 2311
          4.27e-03
                   -6.64e-03 4.64e-04
                                         -1.28e-02 3.40e-02 -5.32e-02 1.007
## 2312
          3.07e-02
                    5.52e-04 -3.06e-02
                                          2.34e-02 -3.99e-02 -8.17e-02 0.996
```

```
## 2313
          4.12e-03
                   -4.45e-03 -3.44e-03
                                        -4.33e-03 -3.28e-03 -2.56e-02 1.033
                                          3.11e-03 9.01e-04 8.90e-02 1.112
## 2314
        -1.78e-02
                     1.21e-02 1.36e-02
                                          1.11e-02 9.90e-03 2.43e-01 1.078
## 2315
        -4.89e-02
                     4.06e-02 3.62e-02
## 2316
          1.83e-02
                    -1.10e-02 -2.07e-02
                                         -9.76e-03 -4.13e-03 -8.91e-02 1.047
## 2317
          5.45e-03
                     5.07e-03 7.17e-03
                                          6.15e-03 7.00e-03 -3.49e-02 1.002
                     5.58e-02 -9.10e-02
                                          9.58e-02 -3.09e-02 -2.47e-01 0.966
## 2318
          2.36e-02
## 2319
          4.05e-03
                     1.34e-03 4.25e-03
                                         -2.08e-03 -2.18e-03 -1.96e-02 1.006
## 2320
          2.94e-03
                   -1.22e-02 -1.63e-02
                                         -1.57e-02 -1.68e-03 -3.56e-02 1.006
## 2321
         -1.41e-02
                    -3.13e-02 1.88e-02
                                         -4.07e-02 1.07e-02 7.57e-02 0.999
## 2322
        -3.43e-03
                   -2.20e-02 -5.37e-03
                                         -7.51e-03 -2.18e-03 -3.43e-02 1.005
## 2323
        -6.89e-02
                     6.04e-02 -2.11e-02
                                          2.24e-02 1.92e-02 -1.39e-01 0.978
## 2324
                    -1.67e-02 3.36e-02
                                          3.08e-02 -1.69e-02 -9.01e-02 1.001
         -4.15e-03
## 2325
          2.99e-03
                     2.31e-03 -1.26e-02
                                          4.31e-03 -5.87e-03 -2.48e-02 1.005
        -1.86e-02
## 2326
                   -2.23e-02 -2.03e-02
                                         -2.18e-02 -3.19e-03 -7.09e-02 0.998
## 2327
                    -2.84e-03 -1.44e-02
                                          2.11e-02 -7.99e-03 -4.30e-02 1.006
          1.13e-02
## 2328
          3.30e-02
                    -1.39e-03 -1.34e-02
                                          1.58e-02 -1.31e-02 -1.04e-01 0.982
                                          1.20e-02 -1.04e-02 -7.02e-02 0.997
## 2329
         -7.51e-03
                    -1.17e-02 -1.42e-02
## 2330
         -6.40e-03
                     4.49e-02 -1.94e-02
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## 2331
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        -1.06e-03
                   -1.95e-02 -6.54e-03
## 2332
          1.76e-03
                    -4.24e-03 1.35e-03
                                          7.65e-03 -8.79e-03 -2.70e-02 1.003
## 2333
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                   -2.12e-02 9.32e-03
                                          7.28e-03 -9.01e-03 -4.19e-02 1.006
## 2334
                    -4.23e-03 -2.15e-03
                                          1.13e-04 2.94e-04 -1.15e-02 1.007
        -1.70e-03
## 2335
                                         -1.00e-02 6.79e-03 -8.25e-02 1.006
          1.85e-02
                    -3.14e-02 -3.48e-02
## 2336
          2.70e-03
                    -5.23e-02 1.49e-03
                                         -1.07e-02 -6.28e-03 -6.44e-02 1.005
## 2337
          2.25e-03
                     5.66e-03 -1.90e-02
                                          3.45e-02 -5.76e-03 -7.98e-02 1.006
## 2338
         -3.67e-02
                   -2.80e-02 -3.89e-03
                                          4.31e-02 -8.30e-03 -9.44e-02 1.003
## 2339
                    -2.83e-03 -1.31e-02
                                         -1.74e-03 -6.10e-03 -2.50e-02 1.006
          4.91e-03
## 2340
          4.33e-03
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                                         -5.73e-03 7.06e-03 -8.24e-02 1.003
## 2341
                                          7.14e-02 -1.68e-03 -1.09e-01 0.999
          5.61e-03
                   -1.46e-02 -1.01e-02
## 2342
          4.29e-03
                     1.44e-03 1.45e-04
                                          7.67e-03 1.19e-03 -1.57e-02 1.005
## 2343
          5.41e-03
                     4.60e-03 1.48e-02
                                         -8.67e-03 -4.28e-03 -4.06e-02 1.009
## 2344
          1.26e-03
                     3.42e-02 -4.35e-02
                                          1.00e-03 -3.45e-02 -1.18e-01 0.991
## 2345
          9.22e-03
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                                          5.30e-02 -2.78e-03 -7.53e-02 1.007
## 2346
                                          6.42e-02 2.75e-04 -1.19e-01 1.000
         -2.61e-02
                    -5.22e-02 -5.17e-04
## 2347
          1.90e-02
                    -1.92e-01
                              8.99e-02
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                                          3.13e-03 -7.05e-04 -6.64e-03 1.008
## 2348
        -1.48e-03
                   -2.89e-03 7.51e-04
## 2349
        -1.16e-03
                    -1.88e-03 -1.67e-03
                                         -1.76e-03 2.07e-04 4.61e-03 1.005
## 2350
          1.44e-02
                    -7.11e-03 -5.04e-02
                                         -3.35e-02 -3.73e-03 -7.49e-02 1.004
## 2351
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                                          7.36e-02 -4.92e-02 -1.38e-01 0.989
         -1.18e-02
## 2352
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          7.43e-03
                   -4.24e-03 -7.60e-03
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## 2353
        -8.84e-02
                     1.33e-02 -6.63e-02
## 2354
        -2.66e-03
                   -1.41e-02 9.53e-03
                                         -1.99e-02 1.69e-02 5.95e-02 1.002
## 2355
        -2.02e-02
                     5.10e-02 -7.43e-02
                                          1.16e-02 1.85e-02 -1.49e-01 0.986
## 2356
          2.83e-03
                   -4.10e-03 6.85e-03
                                          1.26e-02 5.56e-04 -2.41e-02 1.005
## 2357
          1.81e-02
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                                          5.25e-02 -1.89e-03 -9.25e-02 0.994
## 2358
                                          3.01e-02 -8.30e-03 -4.01e-02 1.005
          6.99e-04
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## 2359
          1.27e-03
                     4.25e-03 -1.52e-03
                                         -5.43e-03 -6.42e-04 -1.45e-02 1.004
## 2360
                                         -2.64e-02 1.77e-02 -7.01e-02 1.005
          6.61e-03
                     1.15e-02 -3.37e-03
## 2361
         -2.59e-04
                    -4.42e-03 7.81e-03
                                         -4.99e-03 -2.56e-03 -1.55e-02 1.005
## 2362
         -2.83e-03
                    -1.77e-03 -2.21e-04
                                         -1.66e-03 8.39e-04 -5.92e-03 1.007
## 2363
                                         -1.73e-02 -9.37e-04 -4.48e-02 1.002
         5.57e-03
                     3.82e-03 -2.97e-03
## 2364
        -5.38e-03
                     2.60e-03 -5.97e-03
                                         -7.75e-03 -1.65e-04 -1.68e-02 1.004
## 2365
        -3.12e-03
                   -4.88e-02 3.27e-02
                                        -1.51e-02 -3.30e-03 -6.62e-02 1.005
                                          1.44e-03 2.66e-04 1.39e-02 1.005
## 2366
          2.21e-03 -3.36e-03 1.72e-03
```

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          1.60e-02
                    -2.27e-02 2.62e-02
                                          2.19e-02 -2.96e-03 4.65e-02 1.003
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## 2368
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                     9.35e-03 1.09e-02
                                         -1.43e-03 -7.85e-05 -5.12e-03 1.007
## 2369
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                     2.45e-03 -2.74e-03
## 2370
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                     2.25e-03 -4.50e-03
                                          6.74e-03 2.48e-03 2.99e-02 1.001
## 2371
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                                          1.12e-04 -1.51e-04 -3.69e-03 1.005
## 2372
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                                         -2.49e-03 1.29e-03 -6.25e-03 1.005
          2.88e-04
## 2373
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                     2.75e-03 8.60e-03
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                                          1.27e-04 1.53e-03 1.74e-02 1.008
## 2374
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                    -5.27e-03 -1.42e-03
## 2375
         -8.70e-07
                    -1.25e-03
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## 2376
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                     1.78e-03
                              2.61e-03
                                          9.12e-03 -2.12e-03 3.08e-02 1.001
## 2377
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                     2.54e-03
                              2.82e-03
                                         -8.44e-04 5.95e-04 -8.69e-03 1.008
## 2378
                                          4.05e-03 -1.71e-03 1.26e-02 1.006
          1.47e-03
                    -3.86e-03
                              6.58e-03
## 2379
          1.17e-03
                     1.07e-03 -8.95e-04
                                          3.93e-03 1.31e-03 -6.38e-03 1.006
## 2380
          1.08e-03
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                                          1.39e-04 1.49e-03 -1.04e-02 1.010
                                         -4.05e-03 -1.42e-03 -1.03e-02 1.005
## 2381
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          4.75e-04
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## 2382
          1.75e-04
                    -9.78e-04 -5.13e-03
## 2383
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          2.15e-02
                    -9.23e-02 8.83e-03
## 2384
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                     1.78e-04 -6.79e-05
                                         -8.56e-05 2.39e-04 4.64e-04 1.007
## 2385
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          9.50e-03
                     1.58e-02 8.87e-03
## 2386
         -2.07e-02
                    -4.43e-02
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## 2387
         -7.88e-03
                     1.82e-02 6.25e-03
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## 2388
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## 2389
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                     1.51e-04 1.49e-04
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## 2390
          4.01e-04
                     5.51e-03 -4.57e-03
## 2391
        -1.37e-03
                    -1.54e-02 8.54e-03
                                          3.37e-03 -1.67e-02 -3.81e-02 1.009
## 2392
         -4.23e-03
                    -1.93e-02
                              4.34e-03
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## 2393
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                    -7.42e-04
                                          1.12e-03 -1.90e-04 -1.88e-03 1.006
                               2.81e-04
## 2394
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                    -2.40e-02 1.98e-03
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## 2395
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          1.40e-02
                     2.30e-02 -7.51e-02
## 2396
        -2.55e-03
                     1.19e-02 9.59e-04
                                         -6.29e-03 9.18e-03 3.50e-02 1.004
## 2397
          8.28e-03
                    -3.30e-02
                              2.69e-02
                                          3.14e-03 2.64e-03 -5.15e-02 1.006
## 2398
          6.41e-03
                    -3.58e-03 -1.18e-02
                                          6.02e-03 -1.83e-02 -3.89e-02 1.003
## 2399
          7.64e-03
                    -1.77e-03
                              6.01e-04
                                          1.04e-02 -1.11e-02 -3.27e-02 1.003
## 2400
                                         -2.09e-04 -6.95e-04 -1.24e-02 1.008
          2.46e-03
                    -5.65e-03
                              2.11e-04
## 2401
         -5.80e-05
                     2.14e-04 -9.92e-06
                                          1.18e-04 1.15e-04 5.21e-04 1.006
                                         -8.27e-04 3.31e-03 6.57e-03 1.007
## 2402
         -2.01e-03
                     1.52e-03 6.36e-04
## 2403
        -1.39e-02
                     3.12e-02 2.42e-03
                                         -1.87e-02 1.58e-03 5.67e-02 0.999
## 2404
          1.52e-02
                    -2.16e-02 -1.00e-02
                                          1.26e-02 -1.76e-02 -6.29e-02 1.000
## 2405
         -5.49e-03
                    -9.06e-03 -5.33e-03
                                          3.34e-03 -1.40e-02 -3.05e-02 1.006
          3.96e-04
                     2.41e-04 -7.78e-05
                                          5.98e-04 1.02e-03 -1.99e-03 1.010
## 2406
                                          1.20e-03 -1.40e-02 4.25e-02 1.008
## 2407
         -4.07e-03
                    -1.66e-02 4.74e-03
## 2408
          1.85e-02
                    -2.25e-02 -8.76e-03
                                         -1.39e-02 2.84e-02 -7.56e-02 1.005
## 2409
          1.58e-02
                    -2.38e-02 -5.23e-03
                                          5.34e-04 -5.78e-03 -4.81e-02 1.001
## 2410
        -1.49e-03
                     3.22e-03 -3.78e-03
                                         -2.33e-03 3.02e-03 9.16e-03 1.008
## 2411
        -1.58e-02
                     3.50e-03 -1.64e-02
                                         -3.20e-02 2.07e-02 5.71e-02 1.005
## 2412
                    -3.28e-03 -2.32e-02
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          1.80e-02
## 2413
        -4.55e-03
                     2.02e-02 -6.50e-03
                                         -7.45e-04 -7.86e-04 2.83e-02 1.007
## 2414
          1.02e-03
                    -4.83e-03 -3.29e-03
                                         -5.47e-03 -1.74e-03 -1.84e-02 1.009
## 2415
        -1.90e-02
                    -2.51e-02 -1.93e-02
                                         -2.01e-02 2.15e-02 8.50e-02 1.000
## 2416
          2.76e-03
                     2.63e-03 9.09e-03
                                          1.09e-02 5.82e-03 2.38e-02 1.010
                    -1.87e-03 1.52e-02
                                          1.10e-02 -1.60e-02 -4.37e-02 1.005
## 2417
          9.18e-03
## 2418
          8.26e-03
                    -1.38e-02 6.56e-02
                                          5.07e-02 -1.57e-02 -1.08e-01 0.995
## 2419
        -1.15e-02
                     1.99e-02 1.98e-04
                                         -1.84e-03 3.30e-02 5.74e-02 1.005
## 2420
          8.62e-03
                   -5.92e-03 1.70e-02
                                          2.41e-03 -3.18e-02 -7.31e-02 1.005
```

```
## 2421
          2.56e-03
                   -6.39e-04 -6.54e-04
                                          6.75e-04 4.14e-03 -1.69e-02 1.009
                                         -1.88e-02 1.95e-02 5.96e-02 0.999
                     1.70e-02 -9.49e-03
## 2422
          1.35e-02
## 2423
         -1.33e-02
                     7.94e-03 -1.11e-02
                                         -1.50e-03 -3.49e-02 -6.94e-02 1.004
## 2424
          8.90e-03
                    -1.18e-02 -4.04e-03
                                          7.03e-03 -3.10e-02 -5.71e-02 1.002
## 2425
         -4.00e-03
                     6.14e-04 4.46e-03
                                          1.84e-03 9.59e-03 1.84e-02 1.007
                    -3.18e-03 -5.49e-02
## 2426
          2.11e-02
                                          3.40e-03 6.18e-02 -1.64e-01 0.986
## 2427
          2.04e-02
                    -3.99e-02 6.14e-04
                                         -1.46e-03 -1.41e-02 -8.54e-02 0.989
## 2428
          1.09e-02
                    -9.07e-03 1.89e-02
                                          1.81e-02 -1.80e-02 -4.27e-02 1.004
## 2429
          3.08e-03
                    -1.09e-02 4.17e-03
                                          2.73e-03 -3.89e-03 -1.89e-02 1.006
## 2430
         -3.99e-03
                     4.43e-03 -4.19e-03
                                         -2.55e-02 7.71e-03 4.10e-02 1.005
## 2431
          1.02e-03
                     2.45e-03 1.45e-03
                                          2.81e-04 -4.38e-03 -1.43e-02 1.007
## 2432
                                         -4.97e-04 -7.21e-03 -2.58e-02 1.006
          8.26e-03
                    -3.64e-03 -2.01e-03
## 2433
          1.38e-02
                    -4.99e-02 2.38e-02
                                          5.47e-03 8.91e-03 -6.41e-02 1.005
                    -1.83e-02 -2.28e-05
## 2434
          4.60e-03
                                          8.14e-03 -1.17e-02 -4.91e-02 0.998
## 2435
                    -1.32e-02 1.10e-03
                                          2.52e-03 2.49e-03 -2.40e-02 1.007
          3.94e-03
## 2436
          1.26e-02
                     4.70e-02 -8.65e-02
                                         -3.61e-02 3.55e-02 1.35e-01 0.996
                                          7.17e-03 -1.31e-03 -3.33e-02 1.005
## 2437
          8.96e-05
                    -2.21e-02 3.19e-03
## 2438
         -8.08e-03
                    -5.60e-03 1.57e-02
                                         -3.19e-02 1.38e-02 5.65e-02 1.000
## 2439
         -2.66e-02
                     7.16e-02 -2.76e-02
                                         -3.99e-02 6.22e-03 1.11e-01 0.992
## 2440
          2.72e-02
                    -7.64e-03 -2.13e-02
                                         -3.28e-02 -5.63e-02 -1.27e-01 0.994
## 2441
          1.17e-03
                     1.42e-02 -4.52e-04
                                          1.90e-03 8.86e-03 2.55e-02 1.007
## 2442
                    -5.63e-03 8.53e-05
                                         -7.33e-03 -3.65e-02 1.03e-01 1.003
         -5.18e-03
                    -3.27e-03 1.05e-02
                                          4.29e-02 -2.12e-02 -6.60e-02 1.004
## 2443
        -3.32e-03
## 2444
          8.83e-02
                    -3.44e-02 -5.94e-02
                                         -4.73e-02 4.68e-02 -3.06e-01 0.966
## 2445
        -5.88e-04
                    -8.79e-04
                              6.69e-04
                                          4.82e-04 1.06e-03 2.67e-03 1.009
## 2446
          1.23e-02
                    -8.23e-03
                               3.86e-04
                                          1.13e-02 -9.82e-03 -5.28e-02 1.005
## 2447
                    -8.45e-03
                                          2.25e-02 -1.05e-02 -4.20e-02 1.007
          8.71e-03
                               2.33e-02
## 2448
        -5.53e-03
                     2.95e-03
                              1.20e-03
                                         -2.19e-03 -1.58e-02 2.52e-02 1.007
                                          4.85e-03 -1.80e-02 -3.24e-02 1.008
## 2449
          4.42e-03
                    -1.11e-02 1.07e-02
## 2450
          4.97e-03
                    -9.95e-03 -2.19e-03
                                         -9.97e-04 -2.52e-02 -4.09e-02 1.005
                                         -3.62e-03 2.30e-02 5.47e-02 1.002
## 2451
          8.27e-04
                     4.08e-02 -1.74e-02
## 2452
         -1.19e-02
                     8.55e-03 -9.15e-03
                                         -3.49e-03
                                                   2.36e-03 -2.01e-02 1.023
## 2453
         -9.59e-04
                    -1.35e-02 1.33e-02
                                         -3.15e-02
                                                   2.68e-02 -8.43e-02 1.004
## 2454
                     4.68e-04
          1.51e-04
                              2.80e-03
                                          3.45e-03 5.33e-04 6.71e-03 1.006
## 2455
          4.66e-03
                     7.15e-03
                              1.85e-02
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                                          7.71e-06 -9.83e-06 3.96e-05 1.006
## 2456
          1.56e-06
                    -9.99e-06 -1.13e-05
## 2457
         -3.11e-03
                    -7.30e-03 3.75e-03
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## 2458
          2.41e-03
                    -9.32e-03 2.25e-03
                                         -4.85e-03 5.84e-03 -1.84e-02 1.007
## 2459
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          9.11e-04
        -6.47e-05
                     7.57e-04 -8.25e-04
                                         -1.30e-03 3.41e-04 -4.16e-03 1.005
## 2460
## 2461
          5.01e-03
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                                         -1.50e-02
                                                   1.41e-02 -4.35e-02 1.003
## 2462
          1.23e-03
                     3.90e-04 3.07e-03
                                         -3.34e-03
                                                   9.65e-04 -1.10e-02 1.007
## 2463
        -7.61e-04
                     1.41e-03 1.11e-04
                                          1.80e-04
                                                    1.13e-03 2.59e-03 1.005
## 2464
        -8.42e-03
                    -1.05e-02 5.17e-02
                                                   1.15e-03 -9.50e-02 0.998
                                          1.20e-02
## 2465
        -1.39e-02
                     6.64e-03 -3.46e-02
                                         -3.22e-02 -6.59e-04 -4.96e-02 1.003
                                          2.12e-03 -2.03e-03 1.38e-02 1.004
## 2466
         -1.04e-03
                    -3.09e-03 -4.21e-03
## 2467
         -2.63e-04
                     2.86e-04 -1.26e-03
                                         -3.11e-03 3.19e-03 -9.59e-03 1.006
## 2468
          3.11e-03
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## 2469
          1.22e-04
                    -6.53e-04 1.79e-03
                                         -7.08e-04 6.58e-04 -3.65e-03 1.006
## 2470
         -9.11e-04
                     4.18e-03 -2.10e-03
                                         -1.12e-02 -1.50e-03 -2.35e-02 1.004
                    -6.79e-04 -5.26e-03
                                                   2.67e-03 -2.76e-02 1.002
## 2471
          3.89e-03
                                         -8.05e-03
## 2472
        -1.05e-03
                     8.65e-03 -4.87e-03
                                         -5.52e-03 6.05e-04 -1.49e-02 1.005
## 2473
          1.24e-03
                     3.18e-03 -3.59e-03
                                         -5.32e-03 3.18e-03 -1.34e-02 1.005
        -3.45e-04 -7.18e-04 1.66e-03 -4.30e-03 1.13e-03 -1.09e-02 1.005
## 2474
```

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## 2475
          5.39e-04
                     6.84e-03 4.34e-04
                                        -2.99e-03 1.03e-03 -1.59e-02 1.006
                     2.85e-04 1.21e-02
                                         -7.22e-03 1.04e-02 -4.11e-02 1.001
## 2476
          1.47e-03
## 2477
         -4.88e-04
                    -1.32e-02 -1.05e-02
                                         -1.63e-02 -3.13e-03 -3.87e-02 1.003
## 2478
        -1.52e-03
                    -3.78e-03 6.07e-03
                                          4.67e-03 -4.30e-03 1.50e-02 1.006
## 2479
         -1.40e-04
                     4.92e-03 -6.12e-03
                                          2.00e-03 2.00e-03
                                                             1.09e-02 1.005
        -4.63e-03
                   -4.07e-03 1.47e-02
                                         -2.08e-02 9.45e-03 -5.82e-02 0.997
## 2480
                                         -1.55e-02 -2.79e-03 -3.22e-02 1.003
## 2481
          5.37e-04
                    -2.08e-03 -5.29e-03
## 2482
         -1.17e-02
                    -6.25e-03 6.54e-03
                                         -1.04e-02 4.31e-03 -2.96e-02 1.003
## 2483
         -1.57e-05
                    -4.08e-04 4.19e-05
                                          1.06e-04 -1.39e-04 1.07e-03 1.006
## 2484
        -2.58e-04
                     2.48e-03 -1.05e-03
                                         -4.22e-03 -2.10e-03 -9.83e-03 1.005
## 2485
        -1.55e-03
                    -2.68e-04 -1.44e-02
                                         -2.67e-02 2.18e-03 -5.28e-02 1.001
## 2486
        -1.51e-03
                     1.17e-03 -1.34e-03
                                         -4.87e-03 3.09e-04 -1.26e-02 1.006
## 2487
          1.20e-04
                     6.95e-03 -1.15e-02
                                         -4.78e-03 1.09e-04 -1.86e-02 1.008
                     1.43e-04 2.45e-04
## 2488
          2.09e-04
                                          6.89e-04 -2.63e-04 1.17e-03 1.006
## 2489
                     5.05e-03 -3.18e-04
                                         -1.01e-02 4.79e-03 -3.73e-02 1.002
         -4.26e-03
## 2490
          4.81e-04
                    -8.94e-04 -1.10e-03
                                          1.16e-03 -7.93e-04 4.24e-03 1.006
                                          3.72e-03 -8.52e-03 2.37e-02 1.004
## 2491
          8.80e-04
                    -7.70e-03 -8.11e-04
## 2492
        -2.23e-02
                    -9.64e-03 2.47e-02
                                         -5.79e-03
                                                    1.83e-02 7.14e-02 1.002
## 2493
          2.19e-03
                     9.68e-03 -1.27e-02
                                         -1.14e-02 8.04e-03 -3.79e-02 1.000
## 2494
          2.47e-04
                     6.66e-03 -1.27e-03
                                         -3.33e-03
                                                    5.82e-04 -1.53e-02 1.005
## 2495
          5.04e-03
                    -1.49e-03 -1.23e-02
                                         -8.63e-03
                                                   6.25e-03 -3.26e-02 1.001
## 2496
                    -1.15e-02 7.11e-03
                                          7.28e-03 -2.96e-03 2.50e-02 1.003
         -3.67e-03
                     1.82e-04 -1.07e-03
## 2497
          5.67e-04
                                         -2.16e-03 5.08e-04 -4.63e-03 1.005
## 2498
          3.27e-03
                     1.59e-02 -1.18e-02
                                         -9.94e-03
                                                    4.11e-03 -3.02e-02 1.002
## 2499
        -7.76e-04
                     7.44e-04 8.22e-04
                                         -2.90e-03
                                                   2.82e-03 -2.00e-02 1.004
## 2500
          9.70e-04
                    -2.76e-03 3.97e-02
                                         -8.58e-03
                                                    1.11e-02 -6.25e-02 1.003
## 2501
                     9.97e-03 -7.23e-02
                                         -2.62e-02
                                                   3.98e-03 -1.05e-01 0.996
         -3.44e-02
## 2502
        -3.56e-05
                    -1.28e-04 1.55e-04
                                         -1.38e-04 -4.87e-05 -4.87e-04 1.005
## 2503
                     1.34e-04 -5.78e-03
                                         -1.48e-02 8.38e-03 -4.47e-02 1.003
         9.17e-03
## 2504
        -1.15e-03
                    -5.50e-03 3.10e-03
                                         -7.54e-03 5.06e-04 -1.88e-02 1.004
                                          5.85e-03 -5.92e-03 2.53e-02 1.007
## 2505
         -1.81e-03
                    -1.74e-02 4.17e-03
## 2506
         -7.61e-04
                     3.86e-03 -9.27e-03
                                         -1.90e-02 -1.11e-02 -3.14e-02 1.001
## 2507
         -5.14e-06
                    -2.70e-04 2.91e-04
                                          2.52e-04 -8.50e-05 8.52e-04 1.005
## 2508
                                          9.72e-03 -3.00e-03 2.74e-02 1.003
          1.08e-03
                    -7.70e-03 -1.85e-03
## 2509
         -8.37e-04
                    -2.50e-03 -4.41e-03
                                         -1.41e-02
                                                   2.61e-03 -2.59e-02 1.004
## 2510
        -3.21e-04
                    -4.99e-04 3.01e-04
                                          2.52e-04 1.23e-04 2.16e-03 1.013
## 2511
        -1.97e-04
                     2.08e-03 -8.89e-04
                                         -4.75e-03 3.56e-03 -1.43e-02 1.005
## 2512
        -3.61e-03
                   -3.90e-03 5.23e-03
                                          3.59e-03 -3.85e-04 1.76e-02 1.004
                                                              1.15e-02 1.005
## 2513
                    -1.67e-03 4.55e-03
                                          7.07e-03 -8.73e-04
          3.85e-03
                                          2.16e-03 -8.27e-04 1.38e-02 1.006
## 2514
          2.38e-04
                     4.04e-03 -8.55e-03
## 2515
          4.94e-03
                   -2.11e-03 -6.98e-03
                                         -1.12e-02 8.06e-03 -3.42e-02 1.001
## 2516
          3.05e-03
                     1.71e-03 -1.37e-02
                                         -1.20e-02
                                                    3.88e-03 -2.38e-02 1.005
                   -9.79e-03 -1.17e-02
## 2517
         -1.31e-04
                                          9.44e-03
                                                    4.29e-03 2.91e-02 1.005
          4.42e-04
                   -1.58e-03 -6.64e-05
                                         -7.05e-04 8.66e-04 -3.20e-03 1.008
## 2518
## 2519
        -2.30e-03
                     5.26e-03 3.17e-03
                                          6.42e-03 -3.85e-03 1.49e-02 1.007
## 2520
                    -1.70e-03
                                          1.31e-02 -5.01e-03 2.29e-02 1.005
          5.08e-04
                              1.14e-02
## 2521
          1.03e-03
                    -1.23e-03
                              1.14e-02
                                         -4.47e-03 1.53e-03 -2.17e-02 1.006
## 2522
        -1.28e-02
                     3.08e-03 -9.46e-03
                                         -2.90e-02 5.90e-03 -4.03e-02 1.002
          2.89e-03
## 2523
                    -8.27e-03 1.15e-02
                                         -2.28e-02
                                                    1.45e-03 -5.06e-02 1.005
## 2524
         -2.48e-03
                     6.61e-03 -7.42e-03
                                         -9.12e-03
                                                    1.99e-03 -1.74e-02 1.005
## 2525
                    -2.38e-02 9.65e-03
                                         -4.44e-03 -1.85e-02 -5.50e-02 0.997
         -5.97e-03
## 2526
        -3.69e-03
                   -3.64e-02 6.32e-02
                                         -7.49e-03 -3.53e-03 -8.89e-02 1.003
## 2527
          5.07e-04
                     6.72e-05 -2.93e-03
                                         -4.40e-03 3.18e-03 -1.10e-02 1.005
## 2528
        -1.39e-03
                  -1.06e-02 2.93e-03
                                          4.08e-03 2.61e-03 1.84e-02 1.004
```

```
## 2529
          1.18e-03
                     2.23e-04 -1.27e-02
                                         -1.29e-02 3.31e-03 -2.11e-02 1.005
                                         -4.11e-03
## 2530
          1.94e-03
                    -3.19e-03 -6.57e-04
                                                   3.69e-03 -1.22e-02 1.007
         -1.30e-03
                     2.18e-02 -2.12e-02
## 2531
                                          1.63e-03
                                                    6.81e-03 -3.63e-02 1.005
## 2532
          6.52e-03
                     2.78e-02 -9.00e-04
                                         -2.42e-02
                                                    1.47e-02 -9.07e-02 0.989
## 2533
          6.81e-04
                     5.30e-04 2.04e-03
                                         -9.22e-04 -2.05e-04 -5.08e-03 1.006
## 2534
                     4.43e-03 -6.75e-04
                                          3.52e-03 -4.26e-03 1.30e-02 1.007
         -1.02e-03
## 2535
         -5.07e-04
                    -3.78e-03 -7.12e-03
                                         -1.15e-02 3.19e-03 -2.90e-02 1.002
                    -5.35e-04 2.12e-04
                                          6.50e-04 -1.72e-03 5.14e-03 1.009
## 2536
          3.40e-04
## 2537
         -5.87e-04
                    -2.03e-04 -4.90e-04
                                         -1.18e-03
                                                   1.46e-03
                                                              2.82e-03 1.005
## 2538
          1.58e-02
                     8.08e-03 -8.23e-03
                                          8.69e-03 5.17e-02 -7.74e-02 1.003
## 2539
         -4.08e-03
                    -3.27e-03 -8.54e-04
                                          3.54e-03 -2.04e-02
                                                              2.99e-02 1.007
## 2540
                                          4.17e-03 -4.04e-02
        -1.06e-02
                     1.12e-02 9.57e-03
                                                              8.37e-02 1.006
## 2541
         -1.13e-02
                    -1.37e-02 -4.44e-02
                                         -8.30e-03 -3.72e-02
                                                              1.19e-01 1.001
## 2542
          4.73e-03
                     5.13e-04 -1.24e-02
                                         -1.77e-02 -3.70e-02
                                                             5.40e-02 1.006
## 2543
                     2.83e-02 2.30e-03
                                                    1.41e-02 4.90e-02 1.006
        -1.13e-02
                                          8.67e-03
## 2544
          6.11e-03
                    -4.56e-03
                               4.75e-03
                                          4.68e-03
                                                    3.05e-02 -4.53e-02 1.006
## 2545
          8.07e-03
                     1.99e-04
                               3.20e-02
                                          3.44e-03
                                                    3.18e-02 -6.44e-02 1.009
## 2546
          3.41e-02
                     9.32e-03
                               3.90e-02
                                         -3.66e-02
                                                    4.10e-03 -1.90e-01 1.001
## 2547
          1.30e-03
                    -1.74e-03
                              3.62e-03
                                          8.89e-04
                                                    8.03e-03 -1.08e-02 1.008
## 2548
          5.36e-03
                    -7.78e-03
                              7.53e-03
                                         -6.84e-03
                                                    1.34e-02 -3.28e-02 1.009
## 2549
         -3.90e-02
                    -1.90e-02 -6.52e-02
                                          3.00e-02 -5.52e-02 2.48e-01 0.986
## 2550
                    -1.87e-02 1.13e-02
                                          7.45e-03 -2.15e-02 -4.63e-02 1.007
          6.58e-03
                     2.76e-05 -4.07e-06
                                          4.36e-05 -3.74e-04 5.41e-04 1.007
## 2551
        -9.53e-05
         -2.08e-02
                                         -1.17e-02 -1.21e-02
## 2552
                     5.81e-03 -1.13e-02
                                                              7.15e-02 0.998
## 2553
        -2.17e-03
                    -5.01e-04 -1.01e-02
                                         -4.75e-03 6.50e-03
                                                              1.77e-02 1.009
## 2554
          9.87e-04
                     4.83e-02 -2.53e-02
                                         -2.86e-02 -6.80e-02 1.44e-01 1.000
## 2555
          4.93e-04
                     3.24e-03 -7.76e-04
                                         -4.71e-04 -5.92e-04 -5.17e-03 1.006
## 2556
        -7.62e-05
                     3.80e-04 -9.66e-05
                                          7.17e-05 4.43e-05
                                                              7.51e-04 1.006
## 2557
                     6.26e-02 -2.08e-02
                                          1.30e-02 -7.77e-02 1.44e-01 0.995
          3.29e-03
## 2558
          2.10e-04
                    -1.30e-02 5.19e-03
                                          3.17e-03 3.72e-04
                                                              1.99e-02 1.005
## 2559
          2.11e-03
                     1.66e-02 -1.72e-02
                                          8.31e-03 -1.14e-02 4.78e-02 1.011
## 2560
        -5.21e-03
                    -2.65e-03 -1.23e-02
                                         -1.28e-02 1.96e-02 -7.99e-02 1.009
## 2561
         -8.38e-04
                    -1.79e-04 -1.06e-03
                                         -5.82e-04 -1.59e-03 -5.19e-03 1.005
## 2562
                    -4.71e-04 -2.29e-04
                                          1.04e-04 3.35e-03 -5.34e-03 1.009
        -1.36e-05
## 2563
         -4.61e-03
                     7.97e-02 -1.06e-03
                                          6.04e-04 -1.11e-01
                                                              2.12e-01 0.982
                    -2.71e-02 4.72e-02
                                          2.99e-02 -4.41e-02 1.77e-01 0.996
## 2564
          8.32e-03
## 2565
          9.89e-03
                     6.92e-03 2.52e-02
                                          2.07e-02 -2.35e-02 9.09e-02 1.010
## 2566
          1.73e-03
                     7.79e-03 -3.31e-03
                                          3.12e-03 -9.44e-03 2.48e-02 1.010
## 2567
                     3.36e-02
                               6.92e-03
                                          2.26e-02 -1.98e-02 9.56e-02 1.009
          4.12e-03
                                         -8.42e-03 -2.62e-02 -5.32e-02 1.007
## 2568
          6.24e-04
                    -1.50e-02 -6.64e-03
## 2569
          6.71e-04
                     4.85e-03
                              2.89e-03
                                          1.43e-03
                                                   1.22e-03
                                                              1.23e-02 1.008
## 2570
        -1.27e-04
                    -1.04e-03
                              1.22e-03
                                         -6.33e-04
                                                    4.03e-04
                                                              2.97e-03 1.006
## 2571
         -2.34e-04
                    -6.85e-03 1.49e-02
                                          6.40e-03
                                                    2.46e-03
                                                              1.82e-02 1.007
## 2572
          2.38e-03
                     1.84e-02 -7.51e-03
                                         -5.82e-03 -8.64e-03 -3.32e-02 1.002
## 2573
          9.09e-03
                     3.52e-02 7.74e-03
                                          3.86e-02
                                                    6.85e-03
                                                             8.84e-02 1.023
## 2574
        -1.65e-03
                     2.03e-02 -1.81e-03
                                                    8.43e-03
                                                              3.89e-02 1.003
                                          4.05e-03
## 2575
         -1.70e-03
                    -1.47e-03 -1.43e-02
                                         -2.49e-03
                                                    5.70e-03
                                                              3.08e-02 1.006
## 2576
        -1.63e-03
                    -8.80e-03 2.01e-03
                                         -1.76e-03 1.03e-02 -2.78e-02 1.011
## 2577
         -1.07e-03
                    -4.57e-04 -1.34e-02
                                         -1.30e-02 -1.01e-02 -2.61e-02 1.006
## 2578
          5.04e-05
                    -1.18e-03 -1.68e-03
                                         -1.76e-03 -3.04e-04 -4.91e-03 1.005
                                          4.66e-02 -7.23e-03 1.42e-01 1.014
## 2579
                     4.90e-02 2.06e-02
          7.45e-03
## 2580
        -3.86e-03
                     2.24e-02 -1.36e-02
                                         -1.78e-02 2.29e-02 1.06e-01 0.993
## 2581
        -6.41e-03
                     1.63e-02 2.44e-02
                                          5.67e-04 -2.10e-03 6.87e-02 1.004
## 2582
          3.12e-03
                     3.22e-03 1.54e-03
                                          3.19e-03 -7.43e-03 1.59e-02 1.011
```

```
## 2583
          6.99e-04
                     1.16e-03 1.01e-03
                                          1.36e-03 1.30e-03 5.74e-03 1.006
                                         -9.82e-03 -3.42e-02 6.18e-02 1.007
## 2584
          5.84e-03
                     2.53e-02 -1.66e-02
          7.95e-03
                     1.63e-02 5.49e-03
## 2585
                                          2.15e-02 -3.32e-02 6.10e-02 1.007
## 2586
         -5.36e-05
                     3.92e-04 -5.04e-04
                                         -7.68e-07 -4.58e-04 -1.55e-03 1.006
## 2587
          3.77e-04
                     5.32e-02
                              6.13e-03
                                          2.46e-02 -3.83e-02 1.11e-01 1.004
## 2588
                     1.33e-02 4.80e-03
                                          7.29e-03
                                                   1.20e-02 2.67e-02 1.005
         -3.24e-03
## 2589
         -1.01e-03
                    -4.20e-03 -1.82e-02
                                         -8.60e-03
                                                    2.52e-03 -4.66e-02 1.004
                                                    3.74e-02 1.46e-01 0.978
## 2590
         -1.11e-02
                     1.38e-02 2.86e-02
                                         -3.78e-02
## 2591
         -1.63e-03
                     1.67e-02 1.14e-02
                                          7.36e-03
                                                    1.08e-02 3.82e-02 1.005
## 2592
         -8.60e-04
                    -2.21e-02 1.46e-03
                                         -6.41e-03
                                                   7.06e-03 -3.28e-02 1.008
## 2593
        -1.75e-02
                     7.02e-03 -8.11e-02
                                         -5.25e-02 -2.20e-02 -1.14e-01 0.990
## 2594
                     1.67e-02 2.53e-02
          9.01e-03
                                          4.73e-02 8.31e-03 1.85e-01 1.013
## 2595
          2.05e-04
                    -9.33e-04 -1.07e-03
                                         -1.31e-03 -5.92e-04 -3.35e-03 1.005
## 2596
          1.13e-02
                     3.20e-02 -4.73e-03
                                         -5.55e-03 -8.95e-02 1.92e-01 0.989
## 2597
                     1.74e-02 -1.54e-04
                                          1.82e-02 -4.40e-02 8.44e-02 1.004
          6.44e-03
## 2598
          2.39e-02
                    -6.24e-02 8.61e-02
                                          1.59e-02 -1.03e-01
                                                              2.34e-01 0.993
## 2599
                     3.37e-03 -5.34e-03
                                          3.29e-03 -1.97e-02
          3.37e-03
                                                              3.32e-02 1.008
## 2600
          2.68e-02
                     4.95e-02 2.68e-02
                                          8.78e-02 9.20e-02
                                                              2.35e-01 0.966
## 2601
                                          2.35e-03 -4.50e-02 7.39e-02 1.006
          6.13e-03
                     2.01e-02 -2.44e-02
## 2602
         -3.38e-03
                    -1.79e-03 -6.87e-02
                                         -3.95e-02 2.92e-02
                                                              1.38e-01 0.998
## 2603
          2.53e-03
                    -6.14e-03 -4.41e-03
                                         -4.25e-03 -2.16e-02 3.39e-02 1.007
## 2604
         -5.85e-04
                    -8.99e-04 -4.35e-04
                                                   7.08e-04 -3.93e-03 1.006
                                         -7.96e-04
## 2605
                    -1.96e-02 -2.16e-02
                                                    6.53e-04 -5.02e-02 0.999
        -4.83e-03
                                         -6.64e-03
## 2606
         -1.85e-03
                    -6.64e-03 3.93e-03
                                         -1.92e-02
                                                    1.64e-03 5.17e-02 1.002
## 2607
          2.76e-04
                    -5.45e-03 1.10e-03
                                         -8.71e-04
                                                    9.35e-04 -7.74e-03 1.008
## 2608
        -1.79e-04
                     2.41e-03 2.02e-03
                                          3.33e-04
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## 2609
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                    -3.22e-04 -1.19e-03
                                          2.42e-03 -1.85e-03 -5.91e-03 1.005
## 2610
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                     1.74e-02 -6.41e-02
                                         -5.28e-02
                                                    1.51e-02 8.73e-02 0.994
                                                    6.66e-03
## 2611
          6.50e-04
                     1.32e-02 1.26e-02
                                          2.33e-03
                                                             6.48e-02 1.006
## 2612
        -9.07e-04
                    -6.95e-04 2.77e-03
                                          1.03e-03
                                                    6.97e-04
                                                              3.59e-03 1.007
## 2613
          2.06e-03
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                                          1.97e-03
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## 2614
          1.12e-04
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                                          1.88e-04
                                                    4.20e-04 1.11e-03 1.006
## 2615
        -2.16e-03
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                              3.66e-04
                                         -9.69e-04
                                                    9.71e-03 -1.52e-02 1.008
## 2616
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                     1.61e-02
                              4.33e-03
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                               3.69e-03
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                     5.93e-03 9.37e-03
## 2618
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## 2619
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                                          3.18e-03 -1.78e-03
                                                              1.44e-02 1.005
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         -2.03e-03
                    -3.49e-03
                              9.42e-03
                                          4.23e-03 4.62e-03
## 2621
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## 2622
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## 2623
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                    -3.68e-05
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## 2624
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                    -3.75e-03
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## 2625
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                     2.98e-03 8.28e-03
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## 2626
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## 2627
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## 2628
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          1.10e-04
## 2629
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                    -6.57e-03 1.37e-02
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## 2630
         -3.66e-04
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                                          2.40e-03
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                                          3.49e-02
## 2631
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                    -3.95e-03 -8.57e-03
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                                          4.19e-04 -2.60e-04 2.48e-03 1.007
## 2632
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## 2633
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                    -1.89e-02 -1.74e-03
                                          4.35e-02
## 2634
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                   -3.70e-03 -8.84e-05
                                         -8.32e-04 2.69e-05 -6.15e-03 1.005
## 2635
        -5.16e-03
                     1.22e-02 -1.31e-02
                                         -5.89e-03 1.05e-02 2.50e-02 1.005
                   -3.87e-02 1.37e-02
## 2636
          2.42e-02
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```

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                                         -5.25e-03 -5.13e-04 1.12e-02 1.006
## 2638
          2.49e-05
## 2639
          7.55e-04
                    -6.14e-03
                              2.42e-04
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## 2640
                     2.39e-02 5.16e-03
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          1.58e-02
## 2641
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                                         -2.14e-03
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## 2642
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         -2.70e-03
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## 2644
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                    -2.15e-04
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                    -8.88e-02
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## 2647
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                               4.98e-03
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## 2648
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         -8.99e-05
                     3.95e-05
                               7.08e-03
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                     1.79e-05
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## 2650
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                               3.79e-03
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## 2653
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                              2.76e-04
## 2654
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## 2655
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## 2656
          4.58e-03
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## 2657
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## 2658
                     5.00e-03 1.50e-02
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          5.33e-02
## 2660
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## 2662
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## 2663
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## 2664
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## 2665
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## 2666
          2.79e-03
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## 2667
          1.49e-03
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## 2668
         -2.79e-02
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## 2669
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                              2.64e-03
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## 2670
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                     2.97e-02
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## 2671
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                                          3.22e-03
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                    -1.59e-03 -2.89e-03
                                         -2.59e-03 -6.25e-03 -1.19e-02 1.011
## 2672
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## 2673
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                                          8.00e-04
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## 2674
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                                         -2.27e-02
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## 2675
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                                          1.00e-03
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                                                    1.02e-04 -1.02e-03 1.007
## 2676
          3.18e-04
                    -2.22e-04 -2.23e-04
                                         -5.36e-05
## 2677
          7.90e-05
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                                          8.44e-03
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## 2678
        -2.61e-04
                     6.72e-04 -1.31e-03
                                         -5.73e-04
                                                    1.30e-03 3.08e-03 1.006
## 2679
          1.57e-03
                    -3.52e-04 1.20e-04
                                          6.05e-04
                                                    2.60e-04 -4.24e-03 1.006
## 2680
                    -2.19e-02 -8.18e-03
                                         -5.40e-03
                                                    1.95e-02 -5.48e-02 1.008
          1.00e-02
## 2681
          7.96e-03
                     9.37e-03 6.08e-03
                                          9.28e-03 -4.19e-03 -2.83e-02 1.006
## 2682
         -4.81e-03
                                                    1.47e-02 1.54e-01 1.012
                     1.01e-01 -4.86e-03
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## 2683
          2.65e-05
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                                          8.67e-05
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## 2684
          3.29e-03
                     3.23e-02 4.16e-02
                                         -3.61e-02
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## 2685
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                                          2.68e-04
## 2686
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                                          3.18e-02
                                                    3.04e-02 9.30e-02 1.004
## 2687
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          1.60e-03
                    -1.54e-02 4.93e-03
## 2688
          5.93e-03
                     7.38e-03 -1.27e-02
                                         -1.45e-02 1.46e-02 -5.06e-02 1.011
## 2689
        -5.67e-03
                    -7.03e-03 -3.08e-02
                                          2.54e-02 -2.17e-02 9.39e-02 1.013
## 2690
          2.40e-03
                     8.41e-04 1.54e-03 -8.87e-04 -4.25e-04 -7.97e-03 1.005
```

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-6.79e-05
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                                        -5.01e-03 9.51e-03 -1.78e-02 1.009
## 2692
        -3.82e-05
                     1.70e-04 4.26e-05
                                          1.56e-04
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                     6.70e-03 -1.85e-03
                                                    9.59e-03 1.97e-02 1.005
## 2693
          2.49e-03
                                         -9.55e-05
                                                    1.12e-02 3.04e-02 1.003
## 2694
        -9.42e-03
                    -3.35e-03 1.99e-03
                                          1.88e-03
## 2695
          1.06e-02
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                                         -1.81e-02
                                                    4.38e-02 -9.98e-02 1.007
                     3.44e-02 -6.65e-02
## 2696
          2.85e-02
                                         -6.80e-02
                                                   4.38e-02 -2.24e-01 0.985
## 2697
         -5.43e-03
                    -4.61e-03 3.18e-03
                                          7.36e-03 7.81e-03 2.52e-02 1.008
## 2698
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                                          1.08e-04 -4.10e-05 -4.37e-04 1.005
## 2699
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## 2700
          3.08e-03
                    -9.41e-04
                              5.70e-03
                                         -1.03e-02 2.62e-02 -4.37e-02 1.007
## 2701
          1.53e-03
                    -5.92e-04
                              4.96e-03
                                         -2.12e-03 5.95e-03 -1.12e-02 1.011
## 2702
          1.99e-03
                    -4.05e-03
                              3.75e-03
                                          2.35e-04 -7.50e-03 -1.34e-02 1.005
## 2703
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                    -9.13e-03
                              8.97e-03
                                         -1.44e-03 8.28e-03 2.93e-02 1.006
                     4.37e-03 4.41e-03
                                          4.70e-03
                                                   1.35e-03 1.10e-02 1.005
## 2704
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## 2705
        -1.61e-03
                                         -2.33e-03 2.23e-03 -1.21e-02 1.006
                    -6.34e-03 3.89e-03
## 2706
         -1.15e-02
                     3.45e-03 -4.09e-02
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                                                             6.93e-02 1.012
## 2707
         -6.39e-04
                     7.61e-04 -4.66e-04
                                          2.41e-03
                                                   4.01e-03 8.17e-03 1.006
## 2708
        -1.93e-03
                     1.09e-02 -3.22e-03
                                          1.14e-02
                                                   1.66e-02 3.21e-02 1.004
## 2709
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          2.99e-04
                    -1.49e-04 5.00e-04
## 2710
         8.14e-04
                     2.16e-02 -1.67e-02
                                          3.84e-03
                                                   3.92e-02 7.56e-02 0.997
## 2711
        -7.54e-03
                     2.32e-02 3.44e-03
                                          2.89e-03
                                                   1.21e-02 6.65e-02 1.011
## 2712
          2.79e-03
                     5.73e-04 -2.76e-03
                                                   7.66e-03 -3.31e-02 1.011
                                         -6.08e-03
## 2713
        -3.63e-03
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## 2714
        -3.22e-01
                    -1.82e-01
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## 2715
        -1.98e-03
                    -1.32e-03
                              8.38e-04
                                         -2.26e-03 -9.62e-04
                                                              6.37e-03 1.009
## 2716
        -7.84e-02
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                                          4.16e-03 4.88e-02
                                                              2.25e-01 1.007
## 2717
        -2.95e-04
                     7.83e-04 -2.53e-03
                                          1.41e-03
                                                    2.74e-03
                                                              6.84e-03 1.006
## 2718
        -6.89e-02
                     1.14e-02 1.42e-02
                                         -7.87e-02 1.84e-02
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## 2719
        -1.38e-02
                    -1.10e-02 -2.33e-03
                                         -8.84e-03 -1.06e-02 4.56e-02 1.006
## 2720
         5.42e-02
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                                          1.54e-01 1.50e-02 -2.12e-01 0.997
## 2721
        -1.45e-02
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## 2722
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## 2723
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## 2724
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## 2727
        -7.16e-02
                    -1.28e-01 8.93e-02
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## 2728
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                    -3.05e-03
                              4.88e-04
                                         -6.58e-04 -8.40e-03
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         -9.13e-03
                     1.81e-03
                              5.43e-03
                                         -5.84e-03 4.91e-03
                                                              2.83e-02 1.024
## 2729
                                         -1.08e-02 -6.74e-03
## 2730
        -2.06e-02
                   -2.23e-02 2.02e-02
                                                              6.05e-02 1.011
## 2731
        -1.82e-02
                     5.12e-03 5.81e-03
                                         -2.46e-02 2.02e-03
                                                             4.99e-02 1.004
## 2732
        -2.84e-02
                    -1.09e-02 -1.98e-02
                                         -7.25e-02 -1.15e-02 9.77e-02 1.005
## 2733
          2.21e-02
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          4.65e-02
                   -1.13e-02 -1.69e-03
                                         -1.57e-02 3.52e-02 -1.75e-01 1.005
## 2734
## 2735
        -4.95e-04
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                                         -5.69e-04 -2.43e-04 -1.06e-03 1.007
## 2736
          1.29e-02
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## 2737
        -7.14e-04
                    -6.27e-04 -1.39e-03
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## 2738
          3.74e-04
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                                          1.27e-03 8.17e-04 3.60e-03 1.008
## 2739
        -2.28e-03
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## 2740
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## 2741
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## 2742
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## 2743
          4.02e-03
                   -2.64e-03 2.22e-03
                                        -4.48e-04 7.18e-03 1.91e-02 1.007
## 2744
          6.49e-03 -2.60e-02 -1.93e-02 -5.00e-02 -5.82e-02 -1.48e-01 1.005
```

```
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        -2.70e-03
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                    -4.69e-03 -2.44e-02
                                         -3.32e-02 -1.19e-02 -6.59e-02 1.003
## 2746
         -1.26e-02
                                         -9.23e-03 -9.30e-03 -4.45e-02 1.013
## 2747
         -3.18e-02
                    -6.06e-03 4.02e-03
## 2748
         -3.09e-03
                     1.85e-03
                              4.98e-03
                                          1.29e-03 -3.17e-03 -1.66e-02 1.007
## 2749
         -8.06e-02
                    -4.05e-02
                              1.68e-02
                                         -2.14e-02 -2.43e-02 -1.20e-01 1.007
## 2750
                              6.22e-03
                                          1.91e-03 -8.64e-03 -1.88e-02 1.005
          1.46e-03
                     1.16e-03
                                          1.89e-02 -3.24e-02 5.66e-02 1.008
## 2751
         -1.08e-03
                    -4.32e-03
                               1.23e-02
## 2752
         -5.93e-05
                     8.18e-04 5.23e-03
                                          7.41e-03 -2.62e-03 -1.03e-02 1.005
## 2753
         -6.83e-04
                    -1.73e-03 -2.13e-03
                                         -9.61e-04 -6.37e-03 -1.30e-02 1.007
## 2754
         -6.08e-03
                     3.16e-03 1.59e-03
                                          1.22e-03 1.65e-02 4.98e-02 0.996
## 2755
          6.92e-03
                     1.05e-03 -5.40e-03
                                         -2.20e-03 -1.19e-02 -2.27e-02 1.003
## 2756
                                         -1.40e-03 8.42e-03 1.55e-02 1.004
          3.93e-04
                     4.52e-04 -2.62e-03
## 2757
         -1.73e-02
                    -6.35e-03 2.62e-02
                                          2.39e-02 -4.95e-02 1.12e-01 1.003
## 2758
          7.81e-04
                     6.20e-04 -3.98e-04
                                         -4.59e-04 -8.44e-05 -3.21e-03 1.005
## 2759
                                         -4.62e-02 -4.72e-02 -1.19e-01 1.008
          4.25e-03
                    -5.65e-02 1.58e-02
## 2760
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                     1.55e-03 -7.62e-03
                                         -1.11e-02 1.85e-02 -4.33e-02 1.007
                                          1.28e-02 -1.71e-02 4.55e-02 1.007
## 2761
         -1.79e-03
                     9.00e-03 1.86e-04
## 2762
          1.08e-02
                     8.20e-04 -2.58e-03
                                          1.17e-02 9.43e-03 2.82e-02 1.005
## 2763
                                          6.27e-03 -7.87e-03 -2.31e-02 1.003
         -1.38e-03
                    -4.30e-03 8.16e-03
## 2764
          4.45e-03
                    -4.36e-03 7.79e-03
                                         -2.84e-03 1.23e-02 -3.27e-02 1.009
## 2765
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                    -7.08e-03 2.38e-02
                                          4.04e-03 -7.13e-03 -3.41e-02 1.005
## 2766
         -6.61e-03
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                                          1.26e-03 1.84e-03 3.46e-02 1.007
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         -1.07e-02
                    -1.52e-03 -1.39e-03
## 2767
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                                         -5.88e-04 9.52e-04 2.57e-03 1.005
## 2768
         -4.45e-04
## 2769
          4.21e-03
                    -4.52e-03 4.12e-03
                                         -2.54e-03 -8.49e-03 -2.00e-02 1.007
## 2770
        -5.48e-03
                    -1.26e-02 -6.70e-03
                                         -1.38e-03 1.39e-02 4.04e-02 1.004
## 2771
         -2.06e-02
                     4.30e-03 -9.39e-05
                                          1.52e-02 -4.37e-02
                                                              1.09e-01 1.003
        -4.57e-03
## 2772
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                                          1.44e-03 2.75e-03 2.45e-02 1.003
## 2773
                     2.74e-03 -8.96e-03
                                         -4.68e-03 3.93e-03 -2.59e-02 1.004
        -4.11e-04
## 2774
          3.47e-03
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                                         -8.27e-03 -1.26e-03 -2.97e-02 1.010
## 2775
          5.15e-02
                    -2.45e-02 -4.96e-02
                                         -3.52e-02 3.76e-02 -1.65e-01 0.998
                                         -4.59e-02 -6.47e-03 -6.93e-02 1.007
## 2776
          2.62e-03
                    -2.93e-04 -3.76e-02
## 2777
         -5.28e-03
                    -1.02e-02 -7.25e-03
                                          2.61e-03 -3.00e-03 3.09e-02 1.010
## 2778
                                         -6.53e-04 3.43e-04 -2.81e-03 1.006
          6.56e-04
                     1.13e-03 -3.56e-05
## 2779
         -5.94e-04
                     7.76e-04 2.68e-04
                                          3.22e-04
                                                    2.64e-04
                                                              2.32e-03 1.006
                    -6.31e-03 1.42e-02
                                         -2.47e-03 1.49e-03 2.00e-02 1.008
## 2780
         -3.74e-03
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## 2782
          3.19e-03
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## 2783
         -1.12e-03
                    -3.69e-03 -1.32e-03
                                          3.03e-03 2.31e-03 1.17e-02 1.012
                                          7.34e-04 -2.72e-03 1.29e-02 1.007
## 2784
         -1.84e-03
                    -8.46e-03 1.41e-03
## 2785
          2.37e-02
                    -3.41e-02 -3.33e-02
                                         -5.09e-02 1.05e-02 -1.67e-01 1.018
## 2786
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                     2.87e-03 8.07e-04
                                          1.81e-03 6.10e-04 1.53e-02 1.007
## 2787
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                                         -9.02e-03 8.36e-03 -5.69e-02 1.001
## 2788
          6.07e-03
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                                         -1.76e-02 -1.88e-02 -9.34e-02 0.994
## 2789
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                     1.57e-02 -8.59e-02
                                         -8.03e-02 1.04e-02 -1.35e-01 0.986
## 2790
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                                          4.15e-02 2.82e-02 -9.38e-02 1.022
          1.95e-02
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                                          5.57e-03 -4.85e-05 -1.17e-02 1.011
                                         -9.63e-03 5.41e-04 -2.11e-02 1.006
## 2792
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                    -5.14e-03 -6.92e-03
## 2793
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## 2794
          7.01e-03
                     2.39e-02 -4.56e-02
                                         -3.30e-02 -3.68e-04 -7.72e-02 1.002
## 2795
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          7.30e-03
                     1.69e-02 -6.69e-02
## 2796
          5.37e-04
                     5.16e-03 1.14e-02
                                          5.08e-03 -1.34e-02 -6.32e-02 1.004
## 2797
          2.61e-03
                    -3.31e-02 1.85e-03
                                         -7.83e-03 -1.18e-03 -5.10e-02 1.006
## 2798
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```

```
## 2799
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                     1.04e-02 -1.66e-03
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                   -4.67e-02 9.35e-03
                                         -6.79e-03 8.40e-03 -6.44e-02 1.008
## 2800
          8.36e-03
                     9.60e-03 -1.48e-02
## 2801
          1.51e-03
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## 2802
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          9.37e-04
## 2803
          3.72e-02
                    -5.63e-02 -2.88e-02
                                         -5.30e-02 3.31e-02 -1.73e-01 1.002
## 2804
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          1.16e-06
## 2805
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                    -1.48e-02 1.31e-02
                                          1.92e-03 6.38e-03 -7.64e-02 1.002
                                         -1.10e-04 -2.74e-04 1.62e-03 1.007
## 2806
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                     3.06e-04 -1.24e-03
## 2807
         -3.09e-03
                    -4.97e-03 -3.81e-03
                                         -5.07e-03 -6.37e-05 1.26e-02 1.006
## 2808
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                                         -1.88e-02 2.70e-02 -7.80e-02 1.003
## 2809
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## 2810
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## 2811
          1.94e-02
                     4.35e-02 -4.25e-02
                                         -6.32e-02 -3.76e-02 -1.90e-01 0.988
## 2812
        -4.23e-04
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                                          9.22e-04 3.16e-03 -1.75e-02 1.006
## 2813
                    -3.93e-03
                              1.60e-03
          4.26e-03
## 2814
         -1.44e-02
                     6.21e-03
                               2.07e-02
                                          6.06e-03 -1.74e-02 5.83e-02 1.008
                                          1.70e-02 -7.28e-04 2.92e-02 1.003
## 2815
         -2.52e-03
                    -3.24e-03
                               1.00e-02
## 2816
          4.55e-04
                    -6.09e-03
                              1.91e-03
                                          2.93e-04 -2.32e-03
                                                              1.17e-02 1.006
## 2817
         -4.57e-03
                     8.28e-04 -7.00e-03
                                          1.19e-03 -3.61e-04 1.68e-02 1.005
## 2818
         5.93e-03
                     8.55e-03
                              2.40e-03
                                          4.27e-03 5.03e-04 -1.96e-02 1.004
## 2819
        -1.99e-03
                     1.05e-02 -2.12e-02
                                         -3.50e-03 2.08e-02 9.56e-02 0.992
## 2820
          5.79e-04
                                         -2.62e-04 -5.53e-04 -2.47e-02 1.009
                     1.85e-03 6.30e-03
## 2821
                                         -9.20e-04 8.27e-03 2.48e-02 1.007
        -9.72e-03
                    -2.58e-03
                              5.37e-03
## 2822
         -1.08e-02
                    -5.14e-02 7.04e-02
                                         -2.96e-03 -1.21e-02 -1.16e-01 0.996
## 2823
          1.16e-03
                     8.38e-03 -9.78e-03
                                         -5.24e-03 1.06e-03 -1.84e-02 1.007
## 2824
          1.33e-02
                     2.83e-02 -7.70e-02
                                         -9.84e-03 2.09e-02 -1.27e-01 0.998
## 2825
                    -8.07e-03 -3.95e-02
                                         -2.29e-02 -2.21e-02 8.04e-02 0.999
         -1.13e-02
## 2826
        -4.58e-03
                    -1.09e-03 2.87e-03
                                          2.21e-03 9.03e-04 1.80e-02 1.018
## 2827
                                         -1.04e-02 -1.20e-02 -4.54e-02 1.007
          6.71e-03
                     1.38e-02 -1.72e-02
## 2828
          8.56e-04
                    -4.31e-03 4.15e-03
                                         -1.69e-03 1.14e-03 -1.13e-02 1.006
## 2829
          1.49e-04
                     3.62e-03 -9.52e-03
                                         -4.07e-03 9.49e-03 -2.81e-02 1.005
## 2830
        -3.29e-03
                     8.19e-03 6.94e-04
                                         -4.43e-03 -5.47e-03 -2.63e-02 1.004
## 2831
          6.31e-03
                     1.89e-02 -1.69e-02
                                         -1.94e-02 -1.18e-03 -5.10e-02 0.999
## 2832
                              2.52e-03
         -4.30e-04
                    -5.15e-03
                                          1.75e-04 1.08e-03 8.49e-03 1.005
## 2833
          2.94e-04
                     3.26e-04
                              2.20e-04
                                          1.96e-04 3.11e-04
                                                              8.78e-04 1.005
## 2834
          3.42e-03
                    -1.05e-02 1.40e-02
                                         -5.83e-03 -4.46e-02 7.05e-02 1.008
## 2835
          4.41e-03
                    -6.44e-02 -2.36e-02
                                         -3.05e-02 5.34e-02 -1.34e-01 0.998
## 2836
          2.74e-03
                    -7.03e-03 -3.21e-03
                                         -1.91e-03 -3.43e-03 -2.24e-02 1.003
## 2837
          3.48e-04
                     3.05e-08
                               3.05e-04
                                          2.47e-04 -5.35e-04 -2.25e-03 1.005
                                          8.62e-04 -2.58e-02 3.45e-02 1.007
## 2838
         -1.01e-04
                    -2.50e-03 7.03e-03
## 2839
          2.95e-04
                    -9.37e-03 2.31e-02
                                          7.93e-03 5.29e-03
                                                              4.08e-02 1.006
## 2840
          4.60e-04
                     7.00e-03 -1.48e-02
                                          7.25e-03 1.67e-02
                                                              3.80e-02 1.003
## 2841
         -1.81e-03
                     1.54e-03 -8.42e-03
                                         -9.22e-04 -2.13e-02
                                                              3.21e-02 1.007
## 2842
          8.18e-03
                     2.89e-02 -2.26e-02
                                         -2.54e-02 -4.33e-03
                                                              9.75e-02 0.985
## 2843
         -1.67e-03
                     6.53e-03 -1.52e-02
                                         -3.53e-03 6.37e-03
                                                              2.66e-02 1.007
## 2844
                     8.23e-03 -8.44e-03
                                          3.85e-03 -3.01e-02
          2.14e-03
                                                              4.52e-02 1.007
## 2845
        -2.09e-03
                     3.95e-02 -1.39e-02
                                          1.62e-03 -5.40e-02
                                                              9.42e-02 1.002
## 2846
          8.68e-04
                    -4.13e-03 1.20e-02
                                          6.06e-03 -1.45e-02
                                                              2.81e-02 1.008
## 2847
          3.42e-04
                    -1.93e-03 4.47e-03
                                          5.36e-04 1.79e-03
                                                              8.01e-03 1.005
## 2848
          1.23e-03
                    -2.00e-03 2.65e-03
                                         -4.89e-04
                                                    2.05e-03
                                                              5.61e-03 1.005
## 2849
                   -1.61e-03 -2.24e-03
          6.91e-04
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## 2850
          8.01e-05
                     2.45e-04 -2.53e-04
                                         -1.00e-03 6.30e-04 -4.03e-03 1.005
                                          2.65e-03 -1.25e-02 -4.48e-02 0.999
## 2851
          7.96e-03
                   -1.41e-02 -1.13e-03
## 2852
        -4.07e-04 -2.05e-03 3.52e-03
                                          1.73e-03 -3.37e-04 5.00e-03 1.007
```

```
## 2853
          3.85e-04
                    -1.05e-02 5.69e-03
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                    -5.39e-04 -2.19e-04
                                                    9.72e-04
## 2854
          2.13e-04
                                          1.84e-03
                                                              5.03e-03 1.005
                                                    1.31e-02
## 2855
          1.91e-04
                    -8.67e-03 -1.98e-03
                                          1.25e-03
                                                              4.13e-02 1.000
## 2856
          4.12e-04
                    -3.77e-03 4.26e-03
                                          3.31e-03
                                                    1.64e-03
                                                               1.04e-02 1.005
##
  2857
          4.68e-03
                     2.41e-03 -3.41e-04
                                          4.03e-03 -6.73e-03
                                                               2.58e-02 1.006
## 2858
         -6.83e-03
                     4.71e-02 -3.02e-02
                                         -1.86e-02
                                                    7.65e-03
                                                              1.05e-01 0.983
## 2859
          1.10e-04
                    -1.12e-03 -7.42e-04
                                         -4.05e-03
                                                    3.72e-04 -9.74e-03 1.005
## 2860
          2.17e-04
                     8.20e-04 -7.16e-04
                                          6.14e-03
                                                    8.98e-03
                                                              3.71e-02 1.010
## 2861
          7.74e-04
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                                          1.12e-02
                                                    9.50e-04
                                                              3.56e-02 1.004
## 2862
          3.90e-03
                     2.36e-03 1.34e-03
                                          8.64e-03 -2.03e-03 1.76e-02 1.004
## 2863
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## 2864
         -7.89e-04
                     1.70e-02
                              1.53e-02
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## 2865
         -3.37e-05
                    -3.51e-04
                               3.44e-04
                                          5.16e-05 4.03e-05 -6.12e-04 1.006
                              6.46e-04
## 2866
          2.52e-05
                    -3.54e-04
                                         -7.07e-04 -1.29e-03 -3.55e-03 1.005
## 2867
                     4.70e-03 -1.13e-02
                                          2.09e-03 -1.49e-03 2.11e-02 1.005
         -2.19e-03
## 2868
         -3.65e-05
                     8.10e-04
                               2.18e-04
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                                         -6.51e-03 -5.51e-03 -2.42e-02 1.004
## 2869
          1.85e-03
                    -9.26e-03
                              1.55e-03
## 2870
          1.09e-02
                     3.52e-03 -5.22e-04
                                          2.61e-03 -1.30e-03 1.32e-02 1.011
## 2871
          6.97e-05
                    -3.91e-03 -2.28e-03
                                          2.48e-03 4.16e-04
                                                              1.56e-02 1.005
## 2872
          8.23e-04
                     3.65e-03 2.46e-04
                                          2.14e-03 -1.62e-03 6.43e-03 1.009
## 2873
         -1.11e-03
                     3.37e-03 1.80e-04
                                         -2.03e-03 -1.72e-03 -5.96e-03 1.006
## 2874
                                         -8.19e-04 1.83e-03 -1.21e-02 1.007
          5.46e-04
                    -4.81e-03 -1.44e-04
                                         -2.21e-04 1.76e-05 -1.25e-03 1.006
                     3.89e-04 -1.29e-04
## 2875
        -1.75e-04
## 2876
          3.64e - 03
                     9.35e-04 -3.50e-02
                                         -2.52e-02 -8.82e-03 -4.61e-02 1.005
## 2877
          9.59e-04
                    -7.09e-03 -1.68e-03
                                          2.88e-03 -4.84e-03 2.68e-02 1.002
## 2878
         -2.66e-03
                     1.77e-02 -3.26e-02
                                         -1.85e-02 3.54e-03 -4.54e-02 1.004
## 2879
          1.37e-03
                    -5.28e-04 -3.95e-04
                                          5.28e-03 -9.72e-04
                                                              1.37e-02 1.005
## 2880
          1.14e-03
                     1.53e-03 7.71e-03
                                         -7.16e-03 -5.27e-03 -2.24e-02 1.010
## 2881
                                          6.73e-03 -9.95e-03 3.64e-02 1.005
          3.59e-03
                     1.47e-02 -1.17e-03
## 2882
         -9.03e-04
                     2.74e-04 -3.86e-03
                                          2.21e-03 -2.15e-04 8.86e-03 1.007
## 2883
         -3.40e-04
                     2.24e-03 4.41e-05
                                         -1.33e-03 -8.42e-04 -6.82e-03 1.006
## 2884
          1.85e-05
                    -9.51e-06 -4.51e-04
                                          3.58e-04 -4.03e-05
                                                              2.26e-03 1.006
##
  2885
         -6.45e-04
                    -4.60e-03 -5.11e-03
                                          2.79e-03 -1.03e-03
                                                              1.73e-02 1.005
## 2886
                                                              3.29e-02 1.003
          1.42e-03
                    -9.77e-03 5.69e-03
                                          3.22e-03 8.75e-03
  2887
         -6.68e-03
                     5.23e-03 -9.14e-03
                                         -1.57e-02
                                                    3.12e-03 -3.03e-02 1.003
##
## 2888
          8.25e-04
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                                          4.01e-03 9.21e-04 1.23e-02 1.006
## 2889
          3.77e-03
                     1.36e-02 -8.79e-03
                                         -2.83e-03 -2.17e-02 -4.45e-02 1.000
## 2890
        -7.79e-04
                    -1.81e-03 1.99e-02
                                          2.39e-02 -6.72e-03 4.11e-02 1.002
## 2891
          1.72e-03
                     6.13e-03 -3.86e-05
                                          1.12e-02 -3.18e-03
                                                              2.11e-02 1.004
                    -1.71e-02 8.68e-03
## 2892
                                         -6.20e-03 9.47e-03 -3.24e-02 1.006
          1.85e-03
## 2893
         -6.80e-04
                     8.65e-03 1.11e-02
                                          3.29e-02
                                                    1.08e-02 4.87e-02 1.001
## 2894
         -4.07e-04
                    -1.75e-03 -2.45e-04
                                          1.69e-03 5.18e-04
                                                              5.40e-03 1.005
## 2895
         -9.33e-04
                     2.97e-04 6.24e-04
                                         -2.93e-04 -3.92e-04
                                                              3.18e-03 1.005
  2896
          5.75e-04
                    -3.51e-04 -7.67e-04
                                          1.95e-03 -5.94e-04
                                                              4.97e-03 1.005
##
## 2897
         -1.84e-04
                    -6.28e-03 -2.00e-03
                                          5.54e-03 2.36e-03 1.85e-02 1.005
## 2898
                     8.03e-03 -2.99e-03
                                         -7.63e-03 -5.37e-03 -2.33e-02 1.003
          5.31e-04
## 2899
        -7.06e-04
                    -1.43e-02 2.26e-03
                                         -9.25e-03 6.67e-03 -3.13e-02 1.005
## 2900
          2.41e-03
                     3.50e-03 -1.11e-02
                                         -5.06e-03 -1.97e-03 -1.53e-02 1.005
## 2901
         -8.79e-04
                    -8.37e-04 -7.50e-03
                                         -1.02e-02 -4.35e-03 -1.46e-02 1.009
## 2902
         -2.88e-03
                     2.08e-02 -2.92e-02
                                         -2.66e-02 6.26e-02 -1.04e-01 1.003
## 2903
          2.73e-03
                     6.27e-03 -2.23e-02
                                          2.94e-03 -1.01e-02 6.91e-02 1.000
## 2904
          1.92e-04
                     9.67e-04 -1.66e-03
                                         -2.42e-03 -1.93e-04 -3.99e-03 1.005
## 2905
          9.78e-04
                     6.36e-03 -2.68e-03
                                         -7.40e-04 -8.59e-04 -1.59e-02 1.004
## 2906
        -1.50e-03
                     2.99e-03 5.53e-05
                                        -2.21e-03 -7.48e-04 -5.48e-03 1.005
```

```
## 2907
         -8.28e-04
                    -5.64e-04 -2.35e-04
                                          2.72e-03 2.07e-03 6.50e-03 1.006
## 2908
                                         -3.04e-03 -6.25e-03 -1.79e-02 1.006
         -1.10e-04
                     2.05e-03 1.50e-03
## 2909
         -1.46e-04
                     1.82e-03 1.51e-04
                                         -1.28e-03 -2.22e-04 -3.78e-03 1.006
## 2910
        -1.78e-02
                    -1.10e-02 -4.35e-02
                                         -6.74e-02
                                                   1.72e-03 9.02e-02 0.992
## 2911
          6.06e-04
                     1.11e-02 -1.25e-02
                                         -1.00e-02
                                                    1.36e-03 -2.72e-02 1.005
## 2912
                    -5.85e-03 -5.08e-04
                                         -5.21e-03
                                                    4.52e-04 -1.40e-02 1.004
          1.43e-03
## 2913
        -2.22e-06
                    -8.00e-03 9.34e-03
                                         -3.41e-03
                                                    2.41e-05 -3.12e-02 1.002
          5.12e-04
## 2914
                    -1.33e-02 4.03e-03
                                          1.61e-02
                                                   2.85e-03
                                                              3.48e-02 1.004
## 2915
         -6.92e-04
                    -5.16e-04 1.40e-03
                                          4.26e-03 -6.37e-03
                                                               2.32e-02 1.004
## 2916
          5.84e-03
                     5.97e-03 -6.75e-03
                                          1.98e-03
                                                   8.94e-03
                                                              2.95e-02 1.003
## 2917
          2.83e-05
                    -2.92e-04 2.95e-04
                                          2.64e-04
                                                    1.59e-04
                                                               6.45e-04 1.006
## 2918
                                                               2.67e-02 1.004
          1.36e-03
                     7.79e-03 -1.35e-02
                                          3.80e-03
                                                    2.88e-03
## 2919
          3.65e-03
                     1.12e-04 -1.05e-02
                                          1.94e-03 -4.11e-04
                                                              1.62e-02 1.006
         -2.28e-03
                    -2.39e-03 8.48e-03
## 2920
                                         -2.22e-03 5.45e-03 -3.04e-02 1.003
## 2921
         -7.75e-04
                     2.83e-03 -3.26e-03
                                                    1.01e-03
                                                               6.83e-03 1.005
                                          3.75e-04
## 2922
          2.50e-03
                     1.35e-02 -2.45e-02
                                          8.47e-03
                                                    7.59e-03
                                                               8.03e-02 0.988
## 2923
          7.11e-03
                    -9.93e-03 5.60e-03
                                          7.28e-03 -1.79e-03
                                                               2.18e-02 1.004
## 2924
          9.80e-03
                     1.52e-02 -6.38e-04
                                          6.99e-03 -5.83e-03
                                                              3.13e-02 1.007
## 2925
         -2.47e-03
                     1.47e-03 -4.85e-03
                                          7.77e-03 6.43e-03
                                                              3.13e-02 1.000
## 2926
          3.46e-03
                    -5.48e-03 4.67e-03
                                          7.21e-03
                                                    2.94e-03
                                                              1.61e-02 1.005
## 2927
          2.48e-04
                    -1.94e-03 3.72e-04
                                         -1.41e-03
                                                   1.61e-03 -5.14e-03 1.006
## 2928
                    -3.17e-03 -2.07e-02
                                          3.83e-02 -9.94e-04 -7.43e-02 1.003
          2.25e-02
## 2929
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          2.26e-04
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## 2930
          4.14e-03
                    -1.19e-02 2.28e-02
## 2931
         -1.89e-04
                    -4.71e-04 4.08e-04
                                         -9.31e-05 -6.47e-05 7.68e-04 1.007
## 2932
          1.81e-03
                     3.84e-03 -4.81e-03
                                          3.30e-03 -1.02e-03 -1.19e-02 1.006
## 2933
         -1.72e-02
                     1.32e-02 1.84e-02
                                          1.55e-02 -1.89e-02 6.27e-02 0.999
## 2934
         -6.61e-03
                    -2.48e-03 -6.70e-03
                                         -1.34e-02 2.73e-03
                                                              3.61e-02 1.001
## 2935
                     2.84e-03 -9.35e-03
          3.50e-03
                                         -2.57e-04 1.64e-03 -1.61e-02 1.006
## 2936
          3.12e-02
                    -1.34e-02 2.55e-02
                                          8.80e-03 -5.44e-04 4.96e-02 1.003
## 2937
         -3.55e-03
                    -1.81e-02 6.85e-03
                                         -7.10e-03 -5.93e-03 2.78e-02 1.005
## 2938
          2.46e-04
                    -5.97e-04 -2.87e-04
                                          4.73e-05 -1.71e-04 -1.56e-03 1.005
## 2939
          1.17e-02
                    -1.06e-02
                              1.96e-02
                                          4.41e-03 -3.87e-03 3.71e-02 1.002
## 2940
                    -2.73e-04
         -1.12e-04
                              7.39e-04
                                          6.08e-04 6.17e-04
                                                              1.75e-03 1.005
## 2941
         -1.01e-03
                     4.06e-04
                              9.40e-04
                                         -1.47e-03 -1.02e-04
                                                              3.32e-03 1.007
## 2942
                     1.34e-02 -2.62e-03
                                          1.13e-02 -2.48e-03
         -3.63e-03
                                                              4.04e-02 1.000
## 2943
         -4.58e-03
                    -9.74e-03 1.23e-02
                                          8.36e-04 -1.05e-03
                                                              2.10e-02 1.004
## 2944
         -2.57e-03
                    -6.43e-03 4.56e-03
                                         -4.27e-03 -3.12e-03 1.44e-02 1.006
## 2945
          5.06e-04
                     1.62e-03
                               3.85e-03
                                          1.78e-04 -2.23e-03 -8.02e-03 1.007
                                          1.37e-02 -1.24e-02 4.16e-02 1.001
## 2946
          8.13e-03
                     8.12e-03 -6.33e-04
## 2947
         -5.78e-04
                     3.60e-03 -5.94e-03
                                          6.50e-03 8.58e-04 -1.59e-02 1.005
## 2948
         -1.04e-02
                    -4.98e-02 4.39e-02
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                    -1.50e-03 3.09e-05
## 2949
         -2.48e-04
                                         -3.21e-04 -5.84e-04 3.24e-03 1.005
## 2950
          3.60e-04
                    -1.31e-04 2.46e-03
                                         -1.07e-03 7.60e-04 -5.37e-03 1.006
## 2951
          1.24e-03
                     3.41e-03 1.72e-03
                                          1.87e-03 1.12e-03 -6.79e-03 1.005
## 2952
                              1.27e-02
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          3.50e-03
                     7.11e-03
## 2953
          6.54e-04
                     9.00e-03 -7.71e-04
                                         -1.49e-03 1.09e-03 -2.63e-02 1.003
## 2954
         -1.42e-02
                    -1.79e-03 -7.44e-03
                                         -1.15e-02 1.33e-03 -2.48e-02 1.005
          1.19e-04
                     1.51e-04 5.06e-04
## 2955
                                          4.29e-04 -3.46e-05 1.55e-03 1.006
## 2956
          1.75e-04
                     4.48e-04
                               6.75e-04
                                          1.74e-03
                                                    1.36e-04
                                                              2.88e-03 1.006
## 2957
                                                    1.06e-02 -3.49e-02 1.005
          9.06e-04
                    -8.87e-03 1.58e-02
                                         -2.79e-03
## 2958
          2.28e-04
                     1.63e-03 -5.67e-03
                                          1.60e-03
                                                   9.76e-05 9.72e-03 1.005
## 2959
         -1.47e-03
                   -7.11e-04 3.05e-03
                                          1.39e-03 3.57e-03 -1.38e-02 1.004
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## 2960
          3.32e-05
                     9.62e-05 -1.08e-05
```

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-8.57e-04
                   -1.15e-03 1.75e-03
                                        -2.18e-03 7.25e-04 -8.59e-03 1.005
                                          7.15e-04 -8.15e-04 5.65e-03 1.005
## 2962
        -2.31e-04
                    -1.54e-03
                               2.75e-04
## 2963
          9.96e-05
                    -3.46e-04
                               1.16e-03
                                          3.27e-03 -1.44e-04 8.32e-03 1.005
                               4.54e-04
## 2964
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                                         -2.13e-03 8.16e-04 -1.11e-02 1.005
          9.83e-04
## 2965
          3.45e-03
                     1.05e-02
                               1.64e-02
                                         -1.53e-02 8.38e-03 -5.31e-02 1.000
## 2966
                   -1.39e-02 1.41e-02
        -4.68e-03
                                         -1.70e-04 5.55e-03 -6.56e-02 0.999
## 2967
          1.48e-03
                    -8.97e-04 -1.02e-02
                                         -8.14e-03
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## 2968
          5.31e-05
                    -1.95e-04 1.43e-05
                                         -1.17e-04 -2.30e-04 2.43e-03 1.006
## 2969
         -1.09e-03
                    -1.72e-03 4.19e-03
                                          4.99e-03 -1.45e-03
                                                              1.01e-02 1.005
## 2970
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## 2971
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                     1.19e-02
                              6.28e-03
                                         -5.25e-03
                                                   5.75e-04 -3.58e-02 1.008
## 2972
          7.45e-05
                    -4.18e-03
                               5.08e-03
                                         -1.02e-02
                                                    1.06e-03 -2.01e-02 1.004
## 2973
        -3.21e-04
                    -3.75e-04
                              2.06e-03
                                         -1.34e-03 -2.46e-04 -4.79e-03 1.005
        -3.98e-03
## 2974
                    -3.74e-03 2.76e-02
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## 2975
                     8.73e-03 -7.84e-03
                                         -8.90e-03 -7.09e-03 -2.67e-02 1.003
         -2.03e-03
## 2976
         -3.60e-04
                    -2.54e-03 -1.21e-03
                                          5.46e-04 -1.73e-03 6.05e-03 1.006
                                         -1.78e-02 4.88e-03 -3.97e-02 1.000
## 2977
         -1.31e-02
                    -9.17e-03 -8.62e-03
## 2978
         -2.24e-03
                    -2.74e-03 -9.53e-04
                                          8.88e-03
                                                    5.61e-03 2.32e-02 1.003
## 2979
          4.69e-03
                    -2.01e-02 3.87e-03
                                         -2.34e-04
                                                   1.05e-02 -4.16e-02 1.004
## 2980
        -3.27e-03
                     7.30e-03 -8.23e-03
                                          8.40e-03 -6.39e-03 2.71e-02 1.004
## 2981
          1.44e-04
                    -2.98e-03 -7.13e-03
                                          8.19e-03 -1.57e-03
                                                             2.54e-02 1.004
## 2982
        -7.10e-04
                     9.98e-03 -9.85e-03
                                          9.42e-03 -2.67e-03
                                                             2.47e-02 1.005
## 2983
          2.38e-02
                                          1.66e-02 -1.08e-03 3.17e-02 1.005
                     3.57e-03 8.91e-03
        -4.90e-03
                     2.18e-02 -2.60e-03
## 2984
                                          3.47e-03 -6.07e-03 4.05e-02 1.002
## 2985
          1.39e-02
                    -2.65e-03 -2.57e-02
                                         -1.53e-02 4.55e-03 -6.72e-02 0.992
## 2986
        -1.82e-03
                     1.23e-02 -3.63e-03
                                         -9.89e-03 -3.28e-03 -3.16e-02 1.003
## 2987
                    -2.27e-02 -7.38e-03
                                         -2.78e-02 -7.81e-03 5.16e-02 0.999
          8.43e-04
## 2988
        -2.19e-02
                     3.77e-03 -2.88e-02
                                         -6.31e-02 -3.42e-02 -1.01e-01 0.989
## 2989
        -7.99e-04
                    -3.70e-04 -8.03e-04
                                         -1.92e-03 8.17e-04 -4.82e-03 1.005
## 2990
          4.14e-03
                     5.60e-03 -6.86e-03
                                          3.65e-03 -4.02e-03 2.30e-02 1.004
## 2991
         -1.59e-03
                     2.11e-03 -6.91e-03
                                         -3.55e-03 1.98e-03 -1.08e-02 1.006
## 2992
          1.67e-03
                     4.97e-03 -1.49e-02
                                         -6.89e-03 -2.03e-03 -2.44e-02 1.004
## 2993
          1.36e-03
                     6.04e-04 8.90e-03
                                         -1.59e-03 1.65e-03 -1.67e-02 1.005
## 2994
                                         -6.68e-03 6.19e-03 -1.97e-02 1.005
         -4.30e-04
                    -2.58e-03 -4.03e-04
## 2995
         -3.95e-03
                     2.39e-02
                              1.50e-03
                                         -1.31e-02 -1.41e-03 -5.25e-02 0.999
                                          1.01e-02 -2.74e-03 2.88e-02 1.004
## 2996
        -1.79e-03
                    -9.40e-03
                              4.77e-03
## 2997
          9.81e-05
                    -3.63e-03 4.83e-04
                                         -4.23e-04 -9.62e-04 6.39e-03 1.005
## 2998
        -2.00e-03
                    -2.56e-03 -8.41e-03
                                          3.43e-03 -1.12e-03 1.65e-02 1.006
## 2999
          6.89e-05
                    -1.48e-04 7.80e-05
                                         -2.15e-05 -9.69e-05 -3.50e-04 1.005
## 3000
                                          2.82e-03 -1.22e-03 1.27e-02 1.005
          3.36e-04
                     2.95e-05 -3.74e-03
## 3001
         -6.41e-04
                    -4.09e-03
                              5.74e-04
                                          1.53e-03 -1.45e-03 1.02e-02 1.005
## 3002
         -6.70e-03
                     5.27e-03
                              1.74e-02
                                          1.31e-04 7.18e-03 -4.51e-02 1.001
## 3003
         -2.43e-03
                    -8.68e-03
                              6.10e-03
                                         -1.57e-03 3.04e-03 -1.48e-02 1.009
## 3004
         7.51e-03
                                         -1.74e-02 -3.86e-03 -5.51e-02 1.011
                     4.56e-03 1.18e-02
## 3005
        -1.65e-03
                    -6.87e-03 -4.14e-03
                                         -7.76e-03 -7.29e-04 -1.88e-02 1.004
## 3006
          2.71e-04
                     3.11e-04 7.83e-04
                                         -1.98e-04 -2.12e-05 3.95e-03 1.005
## 3007
         -1.15e-03
                    -5.41e-03 1.20e-03
                                          9.78e-04 -6.19e-04
                                                              7.55e-03 1.006
## 3008
        -1.42e-03
                     6.43e-03 -3.83e-03
                                         -1.78e-03 1.34e-03 9.16e-03 1.005
## 3009
        -4.84e-03
                     1.60e-03 2.37e-03
                                         -9.81e-04 -1.60e-03 -1.14e-02 1.005
## 3010
        -2.56e-04
                     9.67e-04 -2.12e-03
                                          7.31e-04 -2.35e-03 6.79e-03 1.007
                     5.05e-03 -8.65e-03
                                          7.60e-04 6.18e-03 -2.73e-02 1.003
## 3011
          7.16e-04
## 3012
          1.03e-02
                     1.53e-02 -2.53e-02
                                         -5.75e-03 -1.03e-02 -4.92e-02 1.002
## 3013
        -1.72e-04
                     1.63e-02 6.84e-03
                                         -3.21e-03 -1.76e-03 -2.97e-02 1.004
                                          1.90e-03 -8.89e-04 7.54e-03 1.006
## 3014
          9.11e-06
                     1.37e-03 -4.62e-03
```

```
## 3015
          1.61e-03
                    -6.96e-03 2.28e-02 -7.91e-04 4.12e-03 -2.95e-02 1.007
                    -1.25e-03 5.82e-04
                                          4.07e-04 -1.93e-05 2.46e-03 1.006
## 3016
          7.64e-04
## 3017
         -9.18e-04
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                                         -1.18e-02 5.77e-03 -5.89e-02 0.993
## 3018
        -7.59e-03
                     9.69e-03 -5.85e-03
                                         -7.91e-03
                                                    1.50e-03 -2.08e-02 1.004
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         -2.17e-03
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         -1.36e-03
                     1.10e-02 -1.08e-02
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        4.89e-05 0.001333
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        1.05e-04 0.001777
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        9.12e-07 0.003540
##
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        6.87e-06 0.002071
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        4.22e-05 0.001218
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        4.11e-05 0.001684
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##
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        5.22e-06 0.003610
##
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        1.14e-04 0.003253
##
        4.76e-04 0.007813
##
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##
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        4.06e-06 0.001897
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        2.04e-06 0.001754
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        2.33e-04 0.002689
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##
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        1.43e-05 0.001741
##
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## 398 2.88e-05 0.001578
```

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       1.80e-05 0.002135
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##
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## 614 1.54e-04 0.001877
```

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```

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## 1333 8.89e-07 0.001873
## 1334 9.01e-05 0.001141
## 1335 6.21e-05 0.002721
## 1336 1.49e-06 0.001230
## 1337 5.89e-05 0.002616
## 1338 1.30e-05 0.001885
## 1339 2.12e-05 0.002434
## 1340 3.47e-06 0.000692
## 1341 1.16e-04 0.002804
## 1342 3.54e-06 0.001266
## 1343 3.57e-04 0.006376
## 1344 1.69e-05 0.001184
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## 1346 1.07e-04 0.000812
## 1347 1.31e-05 0.001608
## 1348 2.75e-08 0.001547
## 1349 1.97e-07 0.001449
## 1350 6.69e-04 0.023201
## 1351 2.30e-06 0.000922
## 1352 1.60e-04 0.003939
## 1353 4.09e-05 0.002979
## 1354 7.51e-05 0.003183
## 1355 7.74e-04 0.002132
## 1356 1.06e-03 0.010075
## 1357 3.20e-04 0.008613
## 1358 3.68e-06 0.000671
## 1359 3.03e-05 0.002597
## 1360 5.26e-04 0.005288
## 1361 9.71e-05 0.001374
## 1362 3.28e-06 0.000982
## 1363 4.74e-05 0.002351
## 1364 1.34e-05 0.002011
## 1365 2.06e-05 0.001035
## 1366 7.50e-03 0.003094
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## 1368 6.70e-05 0.006246
## 1369 4.69e-05 0.001769
## 1370 7.21e-05 0.001466
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## 1371 4.06e-05 0.001090
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## 1373 3.42e-04 0.006680
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## 1375 4.19e-06 0.001965
## 1376 8.79e-05 0.001243
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## 1383 4.67e-05 0.002344
## 1384 1.42e-04 0.002010
## 1385 8.98e-05 0.004104
## 1386 6.56e-05 0.002253
## 1387 8.96e-05 0.002049
## 1388 2.90e-05 0.005877
## 1389 3.55e-04 0.005765
## 1390 3.38e-03 0.008150
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## 1392 5.04e-05 0.001183
## 1393 7.83e-04 0.010845
## 1394 8.69e-04 0.003655
## 1395 8.76e-05 0.001627
## 1396 1.10e-04 0.004369
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## 1420 3.78e-06 0.002162
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## 1432 4.97e-05 0.005339
## 1433 1.46e-05 0.002320
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## 1435 1.41e-05 0.002935
## 1436 1.13e-03 0.005231
## 1437 4.19e-05 0.005263
## 1438 4.35e-06 0.002169
## 1439 6.09e-05 0.002160
## 1440 4.00e-04 0.005375
## 1441 5.29e-06 0.003198
## 1442 5.15e-04 0.002858
## 1443 4.64e-06 0.004790
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## 1493 1.67e-06 0.002453
## 1494 1.08e-04 0.001357
## 1495 8.98e-04 0.005427
## 1496 8.99e-04 0.006068
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## 1866 2.56e-03 0.007983
## 1867 4.28e-07 0.001990
## 1868 8.46e-03 0.013236
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## 1871 8.82e-07 0.001501
## 1872 4.72e-05 0.002432
## 1873 3.47e-08 0.005110
## 1874 1.51e-05 0.001408
## 1875 2.06e-03 0.010419
## 1876 1.26e-04 0.003153
## 1877 5.88e-05 0.002094
## 1878 2.56e-04 0.003842
## 1879 7.27e-05 0.003214
## 1880 1.00e-04 0.001358
## 1881 1.28e-06 0.001722
## 1882 4.18e-04 0.009708
## 1883 1.12e-05 0.002708
## 1884 8.44e-04 0.009069
## 1885 2.29e-05 0.004440
## 1886 3.88e-05 0.002454
## 1887 8.48e-08 0.005212
## 1888 9.06e-04 0.019744
## 1889 1.02e-04 0.001781
## 1890 2.67e-05 0.002103
## 1891 4.65e-04 0.005814
## 1892 4.07e-04 0.007654
## 1893 2.58e-04 0.006970
## 1894 1.29e-10 0.002381
## 1895 4.41e-06 0.002052
## 1896 1.29e-04 0.003152
## 1897 5.71e-04 0.001738
## 1898 6.40e-04 0.011001
## 1899 2.71e-05 0.005745
## 1900 4.59e-05 0.002210
## 1901 4.78e-04 0.001871
## 1902 4.88e-04 0.002748
## 1903 9.02e-05 0.002269
## 1904 9.82e-04 0.004907
## 1905 1.01e-05 0.003539
## 1906 1.83e-05 0.004717
## 1907 1.18e-06 0.004190
## 1908 2.99e-05 0.004948
## 1909 1.26e-05 0.002178
## 1910 5.07e-05 0.002177
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## 1912 4.79e-04 0.006783
## 1913 7.97e-05 0.007715
## 1914 1.62e-03 0.006177
## 1915 1.64e-04 0.002805
## 1916 2.69e-03 0.013184
## 1917 5.59e-06 0.002174
## 1918 4.35e-05 0.008774
## 1919 2.12e-05 0.004617
## 1920 1.95e-04 0.002049
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## 1922 5.61e-04 0.003738
## 1923 7.50e-04 0.003867
## 1924 1.58e-07 0.001654
## 1925 6.02e-04 0.007214
## 1926 2.07e-04 0.002874
## 1927 7.91e-05 0.005140
## 1928 8.19e-05 0.001600
## 1929 5.29e-04 0.003426
## 1930 1.44e-05 0.003180
## 1931 3.55e-06 0.002912
## 1932 7.46e-04 0.005209
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## 1936 2.25e-04 0.002295
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## 1957 2.76e-06 0.003208
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## 1964 1.57e-05 0.003791
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## 1965 1.10e-02 0.016565
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## 1985 4.51e-05 0.005831
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## 1987 3.74e-06 0.000796
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## 1989 5.82e-04 0.002662
## 1990 6.96e-06 0.001695
## 1991 2.15e-04 0.001406
## 1992 1.60e-06 0.007273
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## 1994 1.85e-05 0.003099
## 1995 3.00e-04 0.004152
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## 1998 7.93e-06 0.001827
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## 2013 1.60e-05 0.001988
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## 2017 2.19e-05 0.001405
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## 2424 2.72e-04 0.002679
## 2425 2.81e-05 0.003429
## 2426 2.23e-03 0.004584
## 2427 6.07e-04 0.001677
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## 2949 8.73e-07 0.001068
## 2950 2.40e-06 0.001940
## 2951 3.84e-06 0.001562
## 2952 1.10e-04 0.001016
## 2953 5.75e-05 0.001432
## 2954 5.13e-05 0.002114
## 2955 2.00e-07 0.001579
## 2956 6.91e-07 0.001713
## 2957 1.02e-04 0.002524
## 2958 7.87e-06 0.001577
## 2959 1.60e-05 0.001051
## 2960 1.14e-07 0.002237
## 2961 6.14e-06 0.001033
## 2962 2.66e-06 0.001216
## 2963 5.77e-06 0.000962
## 2964 1.02e-05 0.001148
## 2965 2.35e-04 0.001863
## 2966 3.59e-04 0.002416
## 2967 2.95e-05 0.002932
## 2968 4.93e-07 0.001938
## 2969 8.49e-06 0.001171
## 2970 4.27e-05 0.004591
## 2971 1.07e-04 0.004954
## 2972 3.37e-05 0.001355
## 2973 1.91e-06 0.001304
## 2974 3.57e-04 0.002435
## 2975 5.96e-05 0.001423
## 2976 3.05e-06 0.002111
## 2977 1.31e-04 0.001269
## 2978 4.50e-05 0.001198
## 2979 1.44e-04 0.002716
## 2980 6.14e-05 0.001785
## 2981 5.39e-05 0.001472
## 2982 5.07e-05 0.002215
## 2983 8.38e-05 0.002884
## 2984 1.37e-04 0.001772
## 2985 3.76e-04 0.001339
## 2986 8.34e-05 0.001443
## 2987 2.22e-04 0.001594
## 2988 8.45e-04 0.002261
## 2989 1.94e-06 0.001224
## 2990 4.40e-05 0.001440
```

```
## 2991 9.66e-06 0.002148
## 2992 4.97e-05 0.001767
## 2993 2.33e-05 0.001997
## 2994 3.24e-05 0.001706
## 2995 2.30e-04 0.001614
## 2996 6.91e-05 0.001761
## 2997 3.41e-06 0.001536
## 2998 2.28e-05 0.002864
## 2999 1.02e-08 0.001363
## 3000 1.34e-05 0.001382
## 3001 8.59e-06 0.001398
## 3002 1.70e-04 0.001827
## 3003 1.82e-05 0.005533
## 3004 2.53e-04 0.008312
## 3005 2.96e-05 0.001285
## 3006 1.30e-06 0.000904
## 3007 4.76e-06 0.001741
## 3008 7.00e-06 0.001570
## 3009 1.09e-05 0.001485
## 3010 3.84e-06 0.002759
## 3011 6.21e-05 0.001180
## 3012 2.02e-04 0.002177
## 3013 7.33e-05 0.002127
## 3014 4.74e-06 0.002175
## 3015 7.27e-05 0.004097
## 3016 5.05e-07 0.001719
## 3017 2.89e-04 0.001125
## 3018 3.60e-05 0.001230
## 3019 8.93e-05 0.001283
## 3020 4.44e-07 0.001098
## 3021 2.06e-05 0.002570
## 3022 2.34e-04 0.001523
## 3023 1.61e-08 0.000934
## 3024 3.87e-05 0.002577
## 3025 1.12e-05 0.001254
## 3026 7.88e-06 0.001185
## 3027 1.65e-07 0.002024
## 3028 5.39e-05 0.001673
## 3029 5.94e-05 0.002628
## 3030 1.11e-04 0.002158
## 3031 4.36e-05 0.002792
## 3032 1.35e-05 0.001782
## 3033 7.62e-06 0.000826
## 3034 2.79e-04 0.001439
## 3035 1.38e-05 0.000645
## 3036 1.52e-03 0.004989
## 3037 1.09e-05 0.001058
## 3038 4.44e-05 0.001543
## 3039 2.37e-04 0.005351
## 3040 1.06e-03 0.002657
## 3041 5.29e-04 0.002538
## 3042 2.84e-04 0.004770
## 3043 1.10e-04 0.001394
## 3044 5.19e-04 0.006562
```

```
## 3045 3.72e-04 0.002954
## 3046 3.07e-06 0.001516
## 3047 1.35e-03 0.004781
```

## Remove outliers:

```
# filter outlier 282
step model no 282 <- cancer county %>%
 dplyr::select(-median_age, -pct_black, -median_age_female, avg_household_size) %>%
 tibble::rowid to column() %>%
 filter(rowid !=282) %>%
 na.omit()
step_no_282 <- update(stepwise_model, . ~ ., data = step_model_no_282)</pre>
summary(step_no_282)
##
## Call:
## lm(formula = target_death_rate ~ incidence_rate + poverty_percent +
      median_age_male + pct_unemployed16_over + pct_white + pct_asian +
##
      pct_other_race + pct_married_households + pct_upto_hs18_24 +
##
     pct_with_coverage + income_cat, data = step_model_no_282)
##
## Residuals:
##
     Min
             1Q Median
                           30
                                 Max
## -93.887 -11.689 -0.051 11.936 126.194
## Coefficients:
##
                       Estimate Std. Error t value Pr(>|t|)
## (Intercept)
                      69.286035 11.623979 5.961 2.80e-09 ***
                      ## incidence_rate
## poverty_percent
                      ## median_age_male
                      -0.214490 0.085989 -2.494 0.01267 *
## pct_unemployed16_over 0.750476 0.151124 4.966 7.21e-07 ***
                      0.084336 0.034622
## pct_white
                                          2.436 0.01491 *
                      ## pct_asian
## pct other race
                     -0.920930 0.118468 -7.774 1.04e-14 ***
## pct_upto_hs18_24
                                0.098701 -2.188 0.02875 *
## pct_with_coverage
                      -0.215951
                      -4.039980 1.490114 -2.711 0.00674 **
## income_cat
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 20.62 on 3034 degrees of freedom
## Multiple R-squared: 0.4501, Adjusted R-squared: 0.4481
## F-statistic: 225.7 on 11 and 3034 DF, p-value: < 2.2e-16
# filter #282, 1059
step_model_no_all <- cancer_county %>%
 dplyr::select(-median_age, -pct_black, -median_age_female, avg_household_size) %>%
 tibble::rowid_to_column() %>%
 filter(rowid !=282 & rowid != 1059) %>%
```

```
na.omit()
step_no_all <- update(stepwise_model, . ~ ., data = step_model_no_all)</pre>
summary(step_no_all)
##
## Call:
## lm(formula = target_death_rate ~ incidence_rate + poverty_percent +
     median_age_male + pct_unemployed16_over + pct_white + pct_asian +
##
      pct_other_race + pct_married_households + pct_upto_hs18_24 +
##
     pct_with_coverage + income_cat, data = step_model_no_all)
##
## Residuals:
##
     Min
             1Q Median
                           3Q
                                 Max
## -88.069 -11.710 -0.021 11.854 126.460
## Coefficients:
                       Estimate Std. Error t value Pr(>|t|)
                      65.423198 11.615333 5.632 1.94e-08 ***
## (Intercept)
                                0.007572 30.002 < 2e-16 ***
## incidence_rate
                      0.227187
                               0.118117
                                         9.088 < 2e-16 ***
## poverty_percent
                      1.073476
                      ## median_age_male
## pct_unemployed16_over 0.820282 0.151376 5.419 6.47e-08 ***
## pct_white
                      ## pct_asian
## pct other race
                      ## pct married households -0.211546   0.085231   -2.482   0.013117 *
## pct_upto_hs18_24
                     ## pct_with_coverage
                      -0.188060 0.098557 -1.908 0.056468 .
                                1.485162 -2.744 0.006107 **
## income_cat
                      -4.075167
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## Residual standard error: 20.55 on 3033 degrees of freedom
## Multiple R-squared: 0.4528, Adjusted R-squared: 0.4508
## F-statistic: 228.2 on 11 and 3033 DF, p-value: < 2.2e-16
par(mfrow = c(2,2))
plot(step_no_all)
```

