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).
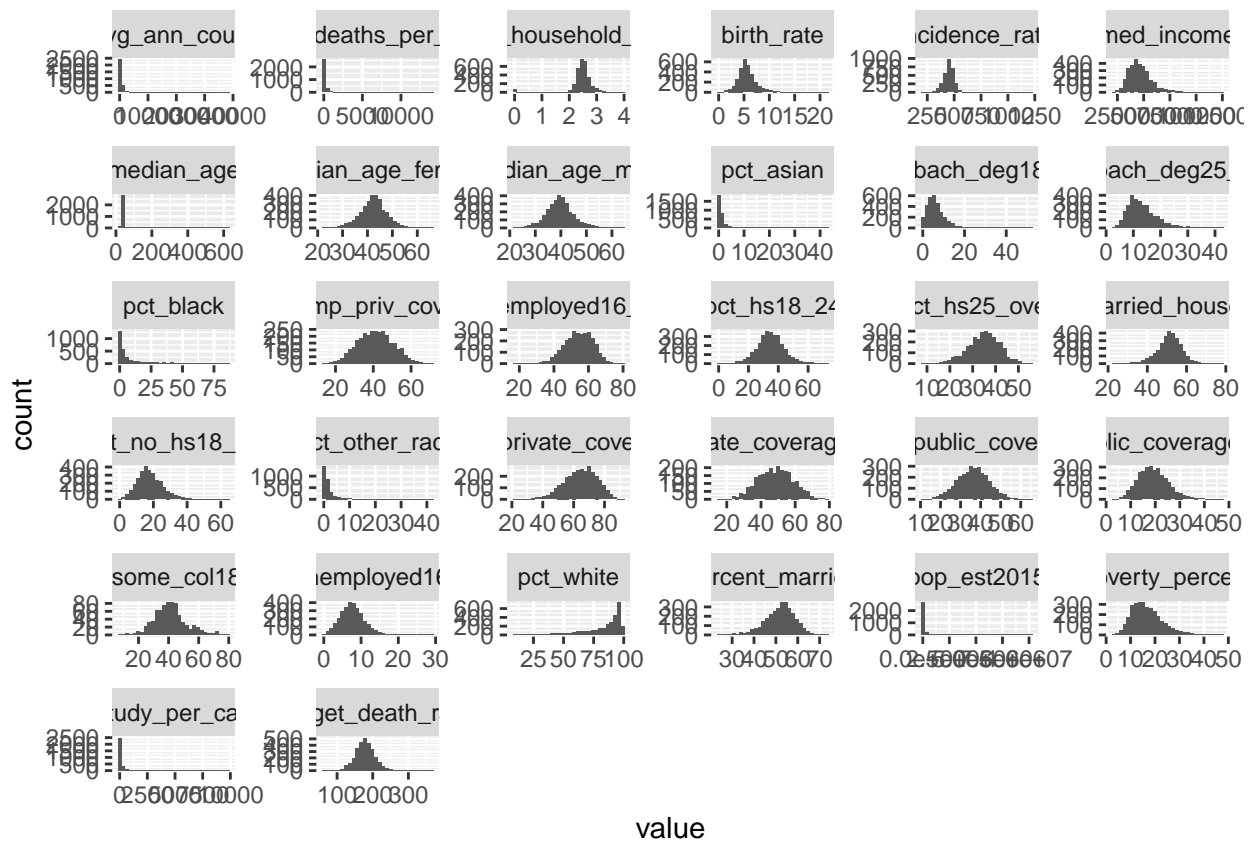
Choose variables:

```r
cancer_county =
  cancer_raw %>%
  janitor::clean_names() %>%
  dplyr::select(target_death_rate, incidence_rate, med_income, poverty_percent, median_age:median_age_fe
  dplyr::select(-pct_hs25_over, -pct_bach_deg25_over, -pct_employed16_over, -percent_married) %>%
  mutate(pct_upto_hs18_24 = pct_no_hs18_24 + pct_hs18_24,
         pct_above_hs18_24 = 100 - pct_upto_hs18_24,
         pct_with_coverage = pct_private_coverage + pct_public_coverage_alone,
         income_cat = ifelse(med_income < 35000, 0, 1)) %>%
  dplyr::select(-(pct_no_hs18_24:pct_bach_deg18_24), -pct_above_hs18_24, -(pct_private_coverage:pct_publ
  na.omit
```

Check correlation and distribution:

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

	target_death_rate	incidence_rate	poverty_percent	median_age	median_age_male	m
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	m
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	

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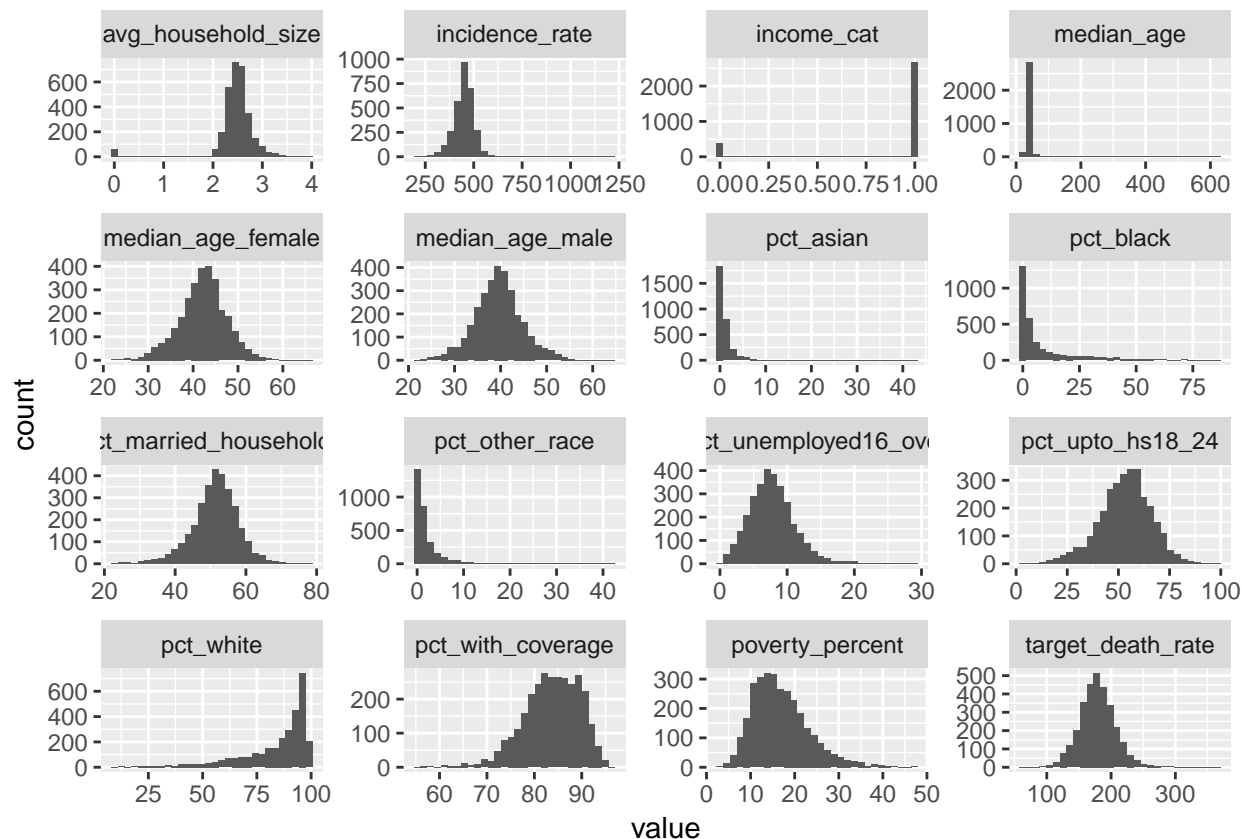

The discriptive statistics:

```
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$target_death_rate)
df_incidence_rate <-state_summary(cancer_county$incidence_rate)
df_poverty_percent<-state_summary(cancer_county$poverty_percent)
df_median_age<-state_summary(cancer_county$median_age)
df_median_agemale<-state_summary(cancer_county$median_age_male)
df_median_agefemale<-state_summary(cancer_county$median_age_female)
df_avg_household_size<-state_summary(cancer_county$avg_household_size)
df_pct_unemployed16_over<-state_summary(cancer_county$pct_unemployed16_over)
df_pct_white<-state_summary(cancer_county$pct_white)
df_pct_black<-state_summary(cancer_county$pct_black)
df_pct_asian<-state_summary(cancer_county$pct_asian)
df_pct_other_race<-state_summary(cancer_county$pct_other_race)
df_pct_married_households<-state_summary(cancer_county$pct_married_households)
df_pct_upto_hs18_24<-state_summary(cancer_county$pct_upto_hs18_24)
df_pct_with_coverage<-state_summary(cancer_county$pct_with_coverage)

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", "

state_wholedes <- cbind(variable, state_des)

knitr::kable(state_wholedes)
```

variable	mean	max	min	median	var	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	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)
summary(full_model)
```

```
##
## Call:
## lm(formula = target_death_rate ~ ., data = cancer_county)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -129.883  -11.469    0.163   12.142  126.523
##
## Coefficients:
##                        Estimate Std. Error t value Pr(>|t|)
## (Intercept)           72.058821  12.583888   5.726 1.13e-08 ***
## 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
## median_age_male       -0.241798   0.212259  -1.139 0.254726
## 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             -0.016016   0.057020  -0.281 0.778818
## pct_asian             -0.628303   0.178918  -3.512 0.000452 ***
## pct_other_race        -0.940645   0.124524  -7.554 5.56e-14 ***
## pct_married_households -0.220555   0.088361  -2.496 0.012611 *
## pct_upto_hs18_24       0.392918   0.038241  10.275  < 2e-16 ***
## 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 '**' 0.01 '*' 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      3Q     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 ***
## incidence_rate          0.219430   0.007509  29.223  < 2e-16 ***
## poverty_percent         1.038613   0.119140   8.718  < 2e-16 ***
## median_age_male        -0.202308   0.086539  -2.338 0.019465 *
## pct_unemployed16_over   0.774783   0.152081   5.095 3.71e-07 ***
## pct_white               0.080440   0.034847   2.308 0.021043 *
## pct_asian              -0.613378   0.167491  -3.662 0.000254 ***
## pct_other_race         -0.933301   0.119239  -7.827 6.84e-15 ***
## pct_married_households -0.222728   0.086039  -2.589 0.009680 **
## pct_upto_hs18_24        0.394452   0.037753  10.448  < 2e-16 ***
## 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 '**' 0.01 '*' 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_other_race pct_married_households       pct_upto_hs18_24
##               1.243892               2.261059               1.614089
##      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
```

```
##   adj.r.squared      RES p.value      AIC      BIC      cp
## 1     0.4405848 20.75648        0 27143.23 27221.51 8.35992
```

forword elimination:

```
step_null <- lm(target_death_rate ~1, data = cancer_county)
for_model <- step(step_null, scope = list(lower = step_null, upper = full_model), direction = "forward")
```

```
## Start:  AIC=20253.13
## target_death_rate ~ 1
##
##                        Df Sum of Sq     RSS   AIC
## + incidence_rate        1    473839 1872027 19568
## + poverty_percent       1    432519 1913347 19634
## + pct_unemployed16_over 1    335919 2009947 19784
## + income_cat            1    215413 2130453 19962
## + pct_married_households 1   201838 2144028 19981
## + pct_black             1    154971 2190895 20047
## + pct_upto_hs18_24      1    140012 2205854 20068
## + pct_with_coverage     1    123320 2222546 20091
## + pct_other_race        1     84591 2261275 20143
## + pct_asian             1     81447 2264419 20148
## + pct_white             1     73826 2272040 20158
## + avg_household_size    1      3195 2342671 20251
## <none>                              2345866 20253
## + median_age_male       1      1128 2344738 20254
## + 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   AIC
## + poverty_percent       1    424402 1447625 18786
## + pct_with_coverage     1    274299 1597728 19087
## + pct_unemployed16_over 1    263513 1608514 19107
## + income_cat            1    222580 1649447 19184
## + pct_upto_hs18_24      1    193672 1678355 19237
## + pct_married_households 1   121502 1750525 19365
## + pct_black             1    100866 1771161 19401
## + pct_asian             1     78292 1793736 19440
## + pct_white             1     68513 1803514 19456
## + pct_other_race        1     22640 1849387 19533
## <none>                              1872027 19568
## + avg_household_size    1       633 1871394 19569
## + median_age_female     1       611 1871416 19569
## + median_age_male       1       550 1871477 19569
## + median_age            1        33 1871994 19570
##
## Step:  AIC=18786.25
## target_death_rate ~ incidence_rate + poverty_percent
##
```

```
##                          Df Sum of Sq     RSS   AIC
## + pct_upto_hs18_24        1     80716 1366909 18613
## + pct_other_race          1     33609 1414016 18717
## + pct_asian               1     32261 1415365 18720
## + median_age_female       1     15019 1432607 18756
## + median_age_male         1     14077 1433549 18758
## + pct_with_coverage       1     13501 1434124 18760
## + pct_unemployed16_over   1     12716 1434910 18761
## + pct_white               1      6634 1440992 18774
## + income_cat              1      5706 1441919 18776
## + pct_married_households  1      3874 1443752 18780
## <none>                              1447625 18786
## + avg_household_size      1       594 1447031 18787
## + pct_black               1       400 1447226 18787
## + median_age              1       181 1447445 18788
##
## 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
## + pct_asian               1     12236 1354674 18588
## + pct_unemployed16_over   1      8454 1358456 18596
## + pct_white               1      3759 1363151 18607
## + income_cat              1      3424 1363486 18608
## + median_age_female       1      1261 1365649 18613
## + avg_household_size      1      1128 1365782 18613
## + median_age_male         1      1069 1365840 18613
## <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         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
## + pct_unemployed16_over   1    9267.5 1323402 18519
## + pct_asian               1    5052.3 1327617 18529
## + pct_with_coverage       1    2375.3 1330294 18535
## + income_cat              1    2145.7 1330524 18535
## + pct_married_households  1    1066.1 1331603 18538
## <none>                              1332669 18538
## + median_age_male         1     458.9 1332211 18539
## + median_age_female       1     398.0 1332271 18539
## + pct_white               1     224.1 1332445 18540
## + median_age              1      35.2 1332634 18540
## + avg_household_size      1      24.8 1332645 18540
## + pct_black               1      16.3 1332653 18540
##
## 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
## + pct_asian                  1    7150.1  1316252  18504
## + income_cat                 1    2011.0  1321391  18516
## + pct_white                  1    1797.2  1321605  18517
## + pct_with_coverage          1    1689.9  1321712  18517
## <none>                                    1323402  18519
## + pct_black                  1     571.9  1322830  18520
## + pct_married_households     1     414.8  1322987  18520
## + median_age_male            1     379.5  1323022  18520
## + median_age_female          1     264.7  1323137  18520
## + median_age                 1     105.8  1323296  18521
## + avg_household_size         1      47.3  1323355  18521
##
## 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
## + pct_with_coverage          1   1477.42  1314774  18503
## + median_age_male            1   1159.91  1315092  18504
## + pct_married_households     1   1136.29  1315116  18504
## + 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
## + median_age                 1    170.35  1316081  18506
## + 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    AIC
## + median_age_male            1   1598.68  1312550  18500
## + pct_with_coverage          1   1583.80  1312565  18500
## + median_age_female          1   1336.46  1312812  18500
## + pct_married_households     1   1292.40  1312856  18500
## <none>                                    1314149  18502
## + pct_black                  1    402.78  1313746  18503
## + pct_white                  1    211.25  1313938  18503
## + median_age                 1    177.61  1313971  18503
## + avg_household_size         1      7.28  1314142  18504
##
## 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          1   1284.92  1311265  18499
```

```
## <none>                                 1312550 18500
## + pct_black                 1     708.06 1311842 18500
## + pct_white                 1     660.99 1311889 18500
## + avg_household_size        1     111.96 1312438 18502
## + median_age                1      80.16 1312470 18502
## + median_age_female         1       0.05 1312550 18502
##
## 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   AIC
## + pct_white             1    1983.12 1309224 18496
## + pct_black             1    1807.47 1309400 18496
## + pct_with_coverage     1    1337.46 1309870 18498
## <none>                              1311207 18499
## + median_age            1      91.07 1311116 18500
## + median_age_female     1      11.49 1311196 18501
## + 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
## + pct_with_coverage     1    1650.15 1307574 18494
## <none>                              1309224 18496
## + pct_black             1     143.74 1309080 18498
## + 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
##
##                        Df Sum of Sq      RSS   AIC
## <none>                              1307574 18494
## + median_age            1     101.118 1307473 18496
## + pct_black             1      24.646 1307549 18496
## + median_age_female     1      15.103 1307559 18496
## + avg_household_size    1       6.381 1307567 18496
```

```
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      1Q   Median      3Q      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 ***
## incidence_rate           0.219430   0.007509  29.223  < 2e-16 ***
## poverty_percent          1.038613   0.119140   8.718  < 2e-16 ***
## pct_upto_hs18_24         0.394452   0.037753  10.448  < 2e-16 ***
## pct_other_race          -0.933301   0.119239  -7.827 6.84e-15 ***
## pct_unemployed16_over    0.774783   0.152081   5.095 3.71e-07 ***
## pct_asian               -0.613378   0.167491  -3.662 0.000254 ***
## income_cat              -4.069227   1.500008  -2.713 0.006709 **
## median_age_male         -0.202308   0.086539  -2.338 0.019465 *
## pct_married_households  -0.222728   0.086039  -2.589 0.009680 **
## pct_white                0.080440   0.034847   2.308 0.021043 *
## pct_with_coverage       -0.194337   0.099299  -1.957 0.050430 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 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
```

```r
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:

```r
back_model <- step(full_model, direction = "backward", trace = FALSE)
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:
##      Min      1Q   Median      3Q      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 ***
```

```
## incidence_rate             0.219430    0.007509  29.223  < 2e-16 ***
## poverty_percent            1.038613    0.119140   8.718  < 2e-16 ***
## median_age_male           -0.202308    0.086539  -2.338 0.019465 *
## pct_unemployed16_over      0.774783    0.152081   5.095 3.71e-07 ***
## pct_white                  0.080440    0.034847   2.308 0.021043 *
## pct_asian                 -0.613378    0.167491  -3.662 0.000254 ***
## pct_other_race            -0.933301    0.119239  -7.827 6.84e-15 ***
## pct_married_households    -0.222728    0.086039  -2.589 0.009680 **
## pct_upto_hs18_24           0.394452    0.037753  10.448  < 2e-16 ***
## 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 '**' 0.01 '*' 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
```

```r
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                 2.261059                 1.614089
##       pct_with_coverage               income_cat
##                2.465515                 1.729209
```

Cross validation and Criterion method summery

```r
cross_df <- crossv_mc(cancer_county, n=100, test = 0.2)

cross_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)

cross_result <- cross_df %>%
  mutate(train = map(train, as_tibble),
         test = map(test, as_tibble),
         step_mod = map(train, ~cross_model),
         rmse_step = map2_dbl(step_mod, test, ~rmse(model = .x, data = .y)))


rmse_result <- cross_result %>%
  dplyr::select(rmse_step) %>%
  lapply(mean) %>%
  as.data.frame(digit=3) %>%
  gather(key=model, value=rmse, rmse_step)

rmse_result
```

```
##      model      rmse
```

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```
## 1 rmse_step 20.73645
```

```r
rbind(model_dig) %>%
  cbind(., rmse_result) %>%
  dplyr::select(model, everything()) %>%
  knitr::kable()
```

| model	adj.r.squared	RES	p.value	AIC	BIC	cp	rmse
rmse_step	0.4405848	20.75648	0	27143.23	27221.51	8.35992	20.73645

Bootstrap

```r
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)            15.4
##  2 incidence_rate          0.0132
##  3 income_cat              1.71
##  4 median_age_male         0.101
##  5 pct_asian               0.267
##  6 pct_married_households  0.104
##  7 pct_other_race          0.152
##  8 pct_unemployed16_over   0.192
##  9 pct_upto_hs18_24        0.0438
## 10 pct_white               0.0429
## 11 pct_with_coverage       0.129
## 12 poverty_percent         0.148
```

Outliers

```r
par(mfrow = c(2,2))
plot(stepwise_model) # we observe the 282, 1059 are outliers
```
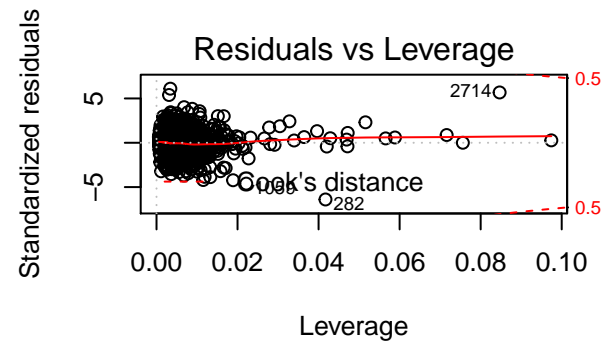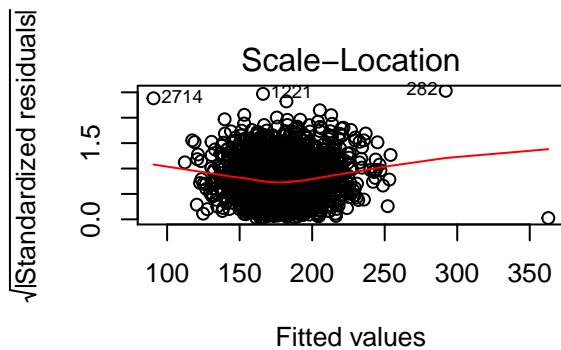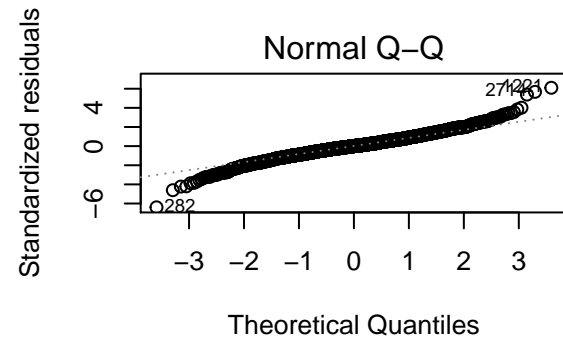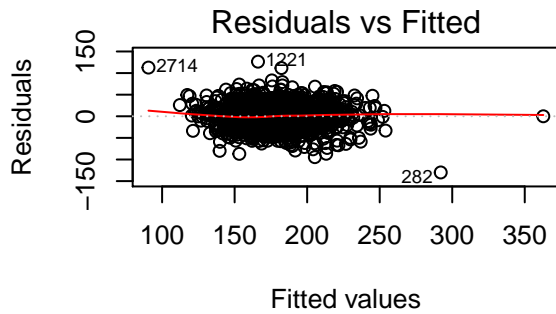
```r
# Using the studentized residuals
stu_res_step <- rstandard(stepwise_model)
outliers_y_step = stu_res_step[abs(stu_res_step) > 2.5]
outliers_y_step
```

```
##       116       119       120       122       124       166       189
##  3.832977 -2.987984 -2.938723  3.451322 -3.218087  3.004467 -2.722478
##       209       250       254       256       264       282       522
##  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
##       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
##      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      2659
##  2.708745  3.313439 -3.205136  3.444507 -2.786091 -4.202767 -3.695226
##      2669      2674      2696      2714      2726      2727      2809
## -2.505761 -3.095519 -2.594155  5.675093  2.838797  3.252953 -2.983391
```

```r
stu_res_for = rstandard(for_model)
outliers_y_for = stu_res_for[abs(stu_res_for) > 2.5]
outliers_y_for
```

```
##      116       119       120       122       124       166       189
## 3.832977 -2.987984 -2.938723  3.451322 -3.218087  3.004467 -2.722478
##      209       250       254       256       264       282       522
## 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
##      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
##     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      2659
## 2.708745  3.313439 -3.205136  3.444507 -2.786091 -4.202767 -3.695226
##     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_uner
##
##        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
## 2    -7.84e-04   1.19e-03 -4.50e-04   1.30e-03  -3.41e-04 -1.64e-03  1.83e-05
## 3    -4.64e-03  -3.24e-02  2.74e-03   8.82e-03   4.47e-03  7.12e-04 -2.97e-03
## 4    -4.97e-03  -7.37e-03 -3.14e-03   4.77e-04   2.06e-02  1.17e-02  3.60e-03
## 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
## 7     1.53e-02  -8.54e-03 -1.79e-02  -1.34e-02   6.00e-03  4.26e-03 -1.01e-03
## 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
## 11    4.98e-04   1.75e-02  4.34e-03  -1.02e-01   8.62e-03  7.56e-03 -8.69e-03
## 12    1.07e-02  -1.32e-02 -2.16e-03  -2.45e-03  -2.37e-03 -3.12e-03 -2.58e-03
## 13    1.93e-03  -1.98e-02 -1.39e-02   6.07e-03   1.51e-02  8.71e-03  2.88e-03
## 14   -6.76e-04  -5.46e-03  5.26e-03   2.50e-03  -2.27e-03 -2.81e-03 -1.90e-02
## 15   -4.10e-04   7.70e-04  6.41e-05   1.18e-03  -8.26e-04 -1.35e-03 -3.84e-04
## 16    4.88e-03   1.82e-03 -5.22e-03  -5.42e-03  -1.82e-03  6.29e-04 -1.25e-03
## 17   -5.27e-06  -4.97e-03  5.54e-03   3.69e-03  -5.35e-03 -3.53e-03 -1.19e-02
## 18    1.63e-02  -4.10e-03  8.25e-03  -5.21e-02  -3.36e-02 -1.13e-03 -8.67e-03
## 19   -1.71e-03   1.49e-05  2.39e-04   2.37e-03   1.02e-03 -2.50e-03  1.10e-03
## 20   -4.46e-03  -8.30e-03  9.86e-04   3.09e-03  -4.20e-03 -8.22e-03 -8.21e-03
## 21    2.90e-02   4.21e-02 -7.43e-02   4.25e-02   6.70e-03 -4.50e-02 -5.13e-02
## 22    8.19e-04   3.89e-04 -9.75e-04   3.81e-03  -5.28e-04 -2.66e-03  8.80e-04
## 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
## 26   -1.04e-03  -2.20e-03 -1.42e-03  -1.12e-03   3.65e-03  3.05e-03  8.99e-04
## 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
## 31    3.02e-03 -1.43e-01  1.17e-02 -3.64e-02 -9.66e-04  3.72e-02  1.73e-02
## 32   -1.44e-02  5.95e-04  1.94e-02  1.18e-03  1.66e-03  1.91e-02  7.50e-03
## 33   -7.46e-03  7.36e-03  2.25e-02  3.60e-03 -9.01e-03 -1.59e-03 -7.01e-04
## 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
## 36    5.73e-03 -7.94e-04 -2.99e-03 -8.62e-04 -3.51e-03  2.35e-02  4.31e-03
## 37    6.97e-04  8.83e-04 -1.06e-03  8.57e-04  3.72e-04  7.50e-04 -4.79e-04
## 38    8.28e-03  3.01e-02  2.55e-03  5.04e-03 -7.06e-03 -1.53e-02 -6.47e-03
## 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
## 41    1.05e-02 -1.05e-02 -1.82e-02 -2.05e-04  1.88e-02 -2.12e-03 -5.85e-03
## 42    3.91e-04  7.50e-03 -1.10e-03 -3.91e-04 -4.19e-03  8.12e-03  1.51e-03
## 43   -6.92e-03  1.62e-02  8.79e-03  2.80e-03 -5.56e-03  8.13e-03  3.38e-03
## 44   -1.34e-02  1.17e-02  5.41e-03 -5.58e-03  1.14e-03  1.62e-02  7.65e-03
## 45   -2.78e-02  3.91e-02  2.01e-02  2.54e-03  2.43e-02  3.25e-02  1.22e-02
## 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
## 50   -6.45e-03  1.36e-02  2.20e-02  4.84e-03 -2.34e-02  6.53e-03  4.47e-03
## 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
## 53   -5.00e-04  1.36e-02 -2.82e-02  3.39e-02  1.71e-02 -3.19e-02 -1.20e-02
## 54   -9.07e-03 -2.89e-03  1.42e-02  1.11e-02 -2.43e-03  4.09e-03  1.41e-03
## 55    3.27e-02 -2.01e-02 -5.81e-02  2.45e-03  5.65e-02  4.62e-02  2.78e-03
## 56   -1.63e-02  1.11e-05  1.69e-02  2.41e-03  2.05e-03  7.67e-03  3.66e-03
## 57   -1.47e-05 -8.09e-04 -9.07e-04 -6.90e-04  1.20e-03 -1.00e-03  6.94e-05
## 58    1.66e-02  2.86e-02 -2.57e-02 -2.55e-02  2.27e-02 -2.08e-04 -6.33e-03
## 59   -4.50e-02 -4.04e-03  2.96e-02  1.84e-03  1.30e-02  6.46e-03 -3.25e-03
## 60    1.29e-03 -2.92e-03 -2.12e-03  1.84e-03 -2.01e-03  1.52e-03  6.25e-04
## 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
## 64    5.89e-03  7.05e-03 -1.22e-02 -6.75e-04  4.58e-03 -6.26e-03 -2.72e-03
## 65   -2.89e-03  1.20e-02 -2.84e-03  8.13e-03  1.35e-02  1.65e-02  2.86e-03
## 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
## 68   -7.95e-05 -6.59e-04  7.70e-05 -3.33e-05  5.86e-04  6.05e-04  1.63e-04
## 69    4.25e-02 -4.11e-02 -3.23e-02 -3.59e-02  3.85e-03 -2.41e-03 -1.16e-02
## 70   -1.06e-03  2.02e-03 -4.19e-03  4.25e-03  1.09e-02  8.20e-03  1.02e-03
## 71   -2.98e-03  6.64e-04  6.55e-03  1.87e-03  5.24e-05  3.61e-03  7.10e-04
## 72   -2.09e-05  7.54e-04 -4.18e-04  1.68e-04 -1.02e-03 -2.20e-03 -2.82e-04
## 73   -3.38e-02  3.34e-02 -3.23e-03  1.47e-02  6.04e-02  7.23e-02  2.91e-02
## 74    2.08e-03 -1.54e-03 -1.26e-03 -4.13e-04  1.76e-04 -1.51e-03 -9.78e-04
## 75   -3.29e-04 -9.22e-06  3.98e-04  2.87e-04  1.40e-05  1.51e-04  4.19e-05
## 76    1.15e-03 -1.90e-03 -3.77e-04  3.58e-04 -1.83e-03 -5.30e-03 -5.26e-04
## 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
## 80    2.01e-04  6.95e-04  2.11e-05  1.53e-04  5.97e-05 -3.85e-04  3.71e-05
## 81   -1.64e-03 -2.66e-02  2.85e-03  4.12e-02  4.88e-03 -1.76e-02 -8.00e-03
```

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## 82    -6.34e-04 -3.97e-03  7.20e-03  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
## 89     2.84e-03 -3.75e-04 -9.33e-04 -1.98e-03  7.04e-04 -2.42e-03 -7.24e-05
## 90    -6.25e-04  2.38e-03 -3.68e-04  2.37e-03  1.32e-03 -1.85e-03 -2.70e-03
## 91    -3.27e-03 -5.44e-03 -5.98e-03 -5.98e-03  2.47e-03  2.38e-03 -2.72e-03
## 92     1.02e-02  1.48e-03 -1.85e-03 -1.58e-02 -1.68e-03  4.27e-03  1.63e-03
## 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
## 95    -1.88e-03  1.83e-03  3.76e-04  4.21e-03  4.32e-04 -3.74e-03 -1.80e-03
## 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
## 99     1.07e-03 -1.55e-03  9.21e-04 -3.19e-03 -1.25e-03  1.74e-03 -1.05e-03
## 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
## 102    6.02e-03 -1.97e-02  1.38e-02  1.66e-02 -3.33e-02 -1.43e-02 -5.41e-04
## 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
## 107    9.81e-04 -1.40e-02  5.07e-03  4.20e-03 -1.26e-02 -2.80e-03 -2.33e-03
## 108    1.10e-03 -5.02e-04 -7.02e-04 -1.07e-05 -5.93e-03 -5.69e-03 -4.78e-03
## 109   -9.71e-04  6.79e-03 -4.81e-03  1.21e-02  3.78e-03  5.78e-04  6.45e-03
## 110    9.08e-03 -1.78e-02 -2.08e-03 -1.49e-02  1.48e-02 -1.66e-03 -8.27e-03
## 111    9.60e-03 -1.47e-02 -1.99e-03 -6.59e-03 -1.44e-02 -2.16e-03 -9.43e-03
## 112    3.01e-02  2.45e-03 -5.33e-02 -2.13e-02  5.24e-02  2.35e-02  9.24e-03
## 113   -1.64e-03 -1.17e-03  2.63e-03 -3.12e-04 -2.02e-03 -1.86e-03 -6.29e-03
## 114   -2.58e-03 -9.32e-03  2.40e-02 -3.90e-02 -2.04e-02  8.60e-03  1.06e-03
## 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
## 119   -3.85e-02 -5.16e-03  1.24e-01  9.19e-02 -1.24e-01 -4.43e-02  5.12e-03
## 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
## 122    5.50e-02 -1.47e-02 -9.01e-02  1.47e-01  1.41e-01  3.42e-02  4.98e-02
## 123   -1.45e-02  9.03e-03 -1.37e-02  4.94e-02  4.51e-02  8.80e-03  1.29e-02
## 124   -3.38e-03 -1.46e-02  5.41e-03  1.64e-02 -2.48e-02 -3.14e-02  3.68e-03
## 125   -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
## 130   -4.65e-03 -9.32e-03  9.29e-03 -1.53e-02  1.85e-03 -5.12e-04 -1.61e-03
## 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
## 134   -3.87e-03 -3.14e-03  8.64e-03  2.52e-03 -1.50e-03 -2.91e-03 -4.25e-03
## 135   -1.21e-03 -3.32e-03  2.81e-03 -6.07e-04  3.68e-04 -5.14e-04  2.44e-04
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## 136  -1.05e-04 -3.69e-03  4.06e-03 -7.42e-04 -1.19e-03  6.08e-04  3.51e-04
## 137   1.51e-03  1.28e-03 -1.28e-03 -7.87e-04  3.03e-04  1.13e-03  4.01e-04
## 138  -6.21e-03 -3.45e-03  1.12e-02 -1.20e-03  5.40e-04 -6.01e-03 -8.77e-04
## 139   1.62e-04 -2.00e-03  1.71e-03 -1.44e-03 -3.29e-03 -6.87e-04 -4.73e-03
## 140   2.91e-04 -1.74e-03  5.37e-04 -2.60e-03 -8.62e-05  4.85e-04 -9.32e-03
## 141   1.71e-03 -7.74e-03  8.95e-03 -6.64e-04 -5.83e-03  6.24e-03 -2.45e-03
## 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
## 144   1.95e-03 -2.80e-03  2.49e-04  2.05e-04 -1.45e-03  8.11e-04  1.74e-03
## 145  -6.34e-03 -3.95e-04  9.92e-03 -4.16e-03 -8.72e-03  8.74e-03  1.08e-03
## 146  -1.55e-03  1.48e-02 -1.33e-02 -1.48e-03  1.26e-02 -4.67e-03 -7.90e-04
## 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
## 149   1.39e-03 -9.80e-03  4.87e-03 -5.29e-03 -5.81e-03  5.59e-03 -2.29e-02
## 150  -1.36e-03  8.00e-03  1.17e-03  1.03e-02  5.76e-04  6.91e-04  7.37e-02
## 151   2.89e-04 -9.49e-03  6.53e-03 -4.13e-03 -4.80e-03  2.59e-03 -5.79e-03
## 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
## 156  -3.28e-03  3.70e-03 -1.36e-03  4.67e-03  3.89e-04 -3.75e-03  2.25e-02
## 157   4.18e-06  4.68e-03 -9.02e-03  2.60e-03  9.04e-03 -2.42e-03 -1.81e-03
## 158  -1.80e-03 -3.00e-03  6.10e-03 -2.39e-03 -3.82e-03  4.03e-03  4.53e-04
## 159   5.98e-04  2.18e-03 -5.62e-03  1.20e-03  5.74e-03  5.97e-05  1.31e-04
## 160  -1.31e-03  5.77e-03  5.93e-04 -9.19e-04 -1.35e-03 -5.90e-03  4.84e-03
## 161   8.42e-03 -1.39e-03  2.89e-03  2.17e-02 -8.82e-03 -2.21e-03  1.14e-03
## 162  -2.26e-03 -3.12e-03  5.69e-03 -1.55e-03 -1.75e-03  2.87e-03 -2.00e-03
## 163   2.08e-02  3.81e-02 -3.01e-02 -1.36e-02 -3.13e-02  3.25e-02  2.84e-02
## 164   2.05e-02  2.61e-02 -1.80e-02 -3.70e-02 -9.35e-03 -1.61e-02  3.69e-06
## 165  -2.13e-04 -1.24e-03  2.21e-04 -7.86e-04  4.83e-04  2.71e-04 -8.02e-04
## 166  -5.36e-02  5.09e-02 -1.38e-02  1.41e-01 -9.07e-02  2.02e-02 -2.68e-02
## 167   1.08e-02  2.41e-02 -4.19e-02  1.63e-02 -1.44e-02 -2.80e-02 -1.60e-03
## 168   5.29e-03 -7.76e-03 -5.09e-03 -9.65e-03 -1.20e-03  6.65e-03 -3.39e-03
## 169   7.91e-04  1.94e-03 -5.36e-04 -9.52e-04 -8.65e-04 -9.41e-04  4.70e-04
## 170  -7.68e-03  2.24e-02 -2.08e-02 -8.43e-03  6.49e-02 -1.48e-02  4.43e-03
## 171  -7.41e-03  2.50e-02  1.41e-02  1.08e-02 -1.61e-02 -3.13e-02 -2.47e-03
## 172   9.88e-03 -9.94e-03 -1.23e-03 -1.37e-02 -2.86e-03  3.79e-03 -4.59e-03
## 173   2.17e-02  3.58e-02 -3.62e-02 -6.90e-02  9.18e-03 -2.35e-04  1.20e-02
## 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
## 176  -1.10e-01  7.30e-02  1.29e-02  2.57e-02  7.96e-03  1.24e-01  3.77e-02
## 177   1.74e-04  3.63e-03  2.53e-03  2.73e-02 -9.96e-03 -2.90e-03 -1.61e-02
## 178   5.63e-04  6.31e-03  6.93e-05  4.84e-03 -1.05e-02 -3.66e-03  2.87e-03
## 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
## 182  -2.22e-03  1.23e-02  1.46e-02 -2.85e-03 -1.60e-02  1.31e-02  1.61e-02
## 183  -2.92e-02  2.95e-02  3.88e-04  7.57e-03  5.58e-03  4.09e-02  2.37e-02
## 184  -2.18e-03 -3.29e-03 -4.40e-03  6.31e-02 -2.93e-02  1.11e-02 -4.14e-02
## 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
## 188  -1.20e-03  1.50e-02  5.08e-03 -2.56e-02 -1.00e-02 -3.93e-03  9.72e-03
## 189   1.08e-01 -1.13e-01 -1.28e-01 -5.82e-02  5.35e-03 -3.36e-02 -2.65e-02
```

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## 190    2.43e-02 -3.05e-02  1.59e-02  1.95e-02 -3.95e-02 -2.36e-03 -2.00e-02
## 191    8.57e-03  1.74e-03 -6.89e-03 -2.32e-03 -4.13e-03 -7.38e-04  2.76e-03
## 192   -4.48e-05 -4.80e-05  5.34e-05  2.47e-05  3.57e-05 -5.05e-05 -1.13e-04
## 193    1.79e-03 -2.03e-03 -3.46e-03  1.19e-03 -3.63e-03 -4.95e-03  5.30e-04
## 194    1.75e-02 -6.38e-03 -3.68e-03 -9.87e-03 -1.52e-03  4.38e-03  1.23e-02
## 195    6.29e-03 -4.31e-03 -8.00e-03  1.00e-03 -5.58e-04 -1.52e-02 -1.45e-02
## 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
## 198    2.26e-02 -3.43e-02 -2.30e-02 -8.61e-03  4.87e-03 -1.90e-02  2.70e-03
## 199    5.73e-03 -3.68e-03 -6.66e-03  1.31e-04  6.25e-03 -2.24e-03 -1.45e-03
## 200    7.38e-03 -1.12e-02 -5.02e-03 -3.68e-03  2.38e-03 -8.99e-03 -1.34e-03
## 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
## 203   -1.99e-02  5.35e-03 -1.19e-02  2.92e-02  1.90e-02 -6.53e-02 -2.31e-02
## 204    1.05e-03  2.62e-03  2.19e-03 -3.63e-03  3.07e-04  6.47e-03 -1.81e-04
## 205    1.14e-02 -1.67e-02 -5.53e-03  8.59e-03 -1.35e-02 -2.34e-02 -9.53e-03
## 206   -9.70e-03  1.05e-02 -1.83e-02 -1.63e-02  1.29e-02 -3.00e-02 -1.29e-02
## 207   -7.54e-04  1.38e-02 -5.70e-03  4.34e-03 -2.98e-03 -2.16e-02 -8.79e-03
## 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
## 210   -5.70e-03 -1.34e-02 -5.49e-04 -1.56e-03 -2.93e-03 -1.34e-02  5.79e-02
## 211    3.48e-03  5.79e-03 -1.22e-02  5.71e-03  5.05e-03 -1.44e-02 -5.19e-03
## 212   -4.89e-03 -1.10e-02  2.15e-02  2.34e-02 -1.75e-02 -2.92e-02 -8.60e-03
## 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
## 215   -8.33e-03 -2.43e-03  2.50e-02  4.55e-02 -3.76e-02 -4.93e-02 -1.17e-02
## 216   -2.56e-02  3.44e-02  2.16e-02  7.48e-02 -1.39e-02 -5.10e-02 -2.05e-02
## 217    4.18e-03  8.36e-03 -1.56e-02  8.52e-03  5.76e-03 -7.41e-03 -8.49e-03
## 218   -2.17e-04 -5.03e-04  3.75e-04 -3.20e-04  2.96e-04  8.07e-06  1.08e-04
## 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
## 222    7.69e-03 -3.41e-03 -7.09e-03 -3.89e-03  1.90e-03  8.11e-03  1.52e-03
## 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
## 226    4.70e-04 -1.06e-02 -2.16e-03  1.09e-02  9.55e-04 -1.37e-02 -7.14e-03
## 227   -2.58e-03  4.24e-04 -8.98e-04 -4.37e-04 -3.09e-04 -3.61e-03 -8.53e-04
## 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
## 231    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  9.59e-04
## 236   -3.22e-04  3.23e-03  8.81e-04  8.79e-04  2.71e-04  2.32e-04  7.04e-04
## 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
## 242   -1.74e-03  1.96e-03 -5.05e-03 -4.63e-03  1.00e-03 -1.32e-02 -2.41e-03
## 243   -1.06e-02  5.69e-03 -1.38e-02 -1.52e-02  4.57e-03 -4.51e-02 -1.15e-02
```

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## 244    2.64e-04 -2.46e-03 -7.05e-03  1.10e-02  4.89e-03 -1.99e-02 -5.01e-03
## 245   -9.85e-03 -6.41e-04  8.24e-03 -2.12e-03 -8.79e-03 -1.27e-02 -3.84e-03
## 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
## 249    4.09e-03  4.67e-04 -4.22e-03  7.22e-03  2.25e-03 -6.25e-03 -3.49e-03
## 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
## 252   -4.62e-03 -1.05e-02 -4.58e-03 -3.59e-03  4.87e-03 -1.50e-02  6.01e-03
## 253    1.18e-02 -1.01e-02 -8.96e-03 -1.89e-03 -2.18e-03  2.29e-04  3.49e-03
## 254    1.17e-01 -2.60e-01 -1.02e-01 -6.24e-02  7.60e-02  1.38e-01  5.29e-03
## 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
## 259   -4.67e-03 -4.63e-03  7.30e-03 -1.03e-03 -9.29e-04  4.63e-03  3.42e-03
## 260   -2.98e-04  4.20e-05  6.50e-04 -1.25e-04 -3.61e-05  1.35e-04 -1.39e-03
## 261    2.43e-02 -1.12e-02 -2.41e-02 -5.93e-03  1.74e-02 -3.45e-02 -2.81e-02
## 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
## 264   -1.84e-02 -1.29e-01 -1.18e-01  1.04e-01  1.00e-01 -1.21e-01 -6.63e-02
## 265    1.41e-02  2.84e-02 -4.74e-02 -2.78e-02  2.30e-02  9.05e-04 -1.68e-02
## 266    9.14e-04  1.05e-03  4.85e-03 -4.99e-03 -3.49e-03  4.40e-05  8.94e-05
## 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
## 269    2.11e-03  1.18e-04 -1.84e-04 -2.42e-03 -2.71e-04 -1.36e-03 -2.00e-04
## 270    7.09e-03 -1.94e-03 -9.55e-03  3.14e-03  3.98e-03  1.65e-02  1.31e-02
## 271   -2.48e-02 -5.84e-02  3.86e-02 -9.15e-03  1.49e-02  5.04e-02  1.96e-02
## 272   -1.74e-03 -6.64e-04 -1.10e-03  6.72e-04  4.85e-04 -2.17e-03 -4.27e-04
## 273    2.92e-02 -7.53e-03 -3.63e-02 -2.04e-02  1.36e-02 -4.79e-02 -3.42e-02
## 274   -4.80e-04  2.85e-03 -4.59e-03  1.06e-02  2.66e-03 -9.15e-03 -5.59e-04
## 275    1.74e-02 -1.16e-03 -4.22e-03 -2.09e-03 -6.16e-03 -4.92e-03 -4.93e-03
## 276    9.46e-04  6.16e-04 -5.23e-04 -3.76e-04 -6.32e-04  2.00e-04  1.79e-04
## 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
## 280    1.04e-02 -4.65e-03 -1.39e-02 -9.30e-03  2.38e-04 -8.21e-03  1.02e-02
## 281   -4.78e-03 -1.15e-02  6.06e-03  3.96e-03  6.16e-03 -3.18e-03 -1.81e-04
## 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
## 284    8.96e-03  3.95e-03 -3.10e-03  6.47e-03 -5.12e-03 -1.04e-03  8.49e-03
## 285   -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
## 290   -1.15e-02  7.00e-03  2.00e-03  3.28e-02  2.07e-02  1.38e-03 -6.73e-03
## 291    3.23e-03  6.67e-04 -2.71e-03 -2.26e-04 -2.04e-03 -1.95e-03 -8.87e-04
## 292    1.91e-03 -1.54e-03 -8.56e-04 -8.12e-04  3.49e-04  1.05e-03  1.50e-03
## 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
## 296   -1.13e-02  6.01e-03 -6.65e-03 -6.69e-03  1.65e-02  2.26e-03 -1.82e-02
## 297    2.34e-03 -9.92e-03  5.38e-03 -1.56e-04 -2.06e-02 -1.41e-02 -5.18e-03
```

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## 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
## 300   -7.94e-04  -1.24e-03   2.76e-04  -1.60e-03   1.91e-03  -2.02e-03  -2.17e-02
## 301    1.28e-03   3.20e-03  -1.71e-03  -7.68e-04  -3.37e-03   2.42e-03   1.59e-03
## 302   -6.15e-04   1.39e-04  -4.11e-04   1.12e-03   2.15e-03   2.56e-03   7.19e-04
## 303    2.08e-03  -2.25e-02  -3.23e-03  -2.68e-03   8.90e-03  -1.59e-03  -5.63e-03
## 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
## 306   -5.38e-03  -2.38e-02   1.42e-03   2.69e-03   3.94e-03   7.56e-03   1.08e-03
## 307    8.23e-03  -1.90e-02  -2.21e-02  -5.83e-03   1.77e-02   2.75e-03  -4.53e-03
## 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
## 311    3.68e-02  -7.79e-02  -3.17e-02   1.37e-02   1.77e-02   3.56e-02  -2.53e-04
## 312   -1.92e-02  -3.38e-02   3.88e-02   6.01e-03  -1.06e-02  -1.09e-02   1.27e-02
## 313    1.01e-02   4.83e-03  -1.00e-02   7.03e-03  -3.95e-03  -5.77e-03   2.28e-03
## 314    1.23e-03  -2.03e-02   6.43e-03   6.33e-03   1.80e-02   1.06e-02  -3.52e-03
## 315   -5.86e-04   2.32e-03  -8.47e-04   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
## 318    5.63e-04   7.42e-04   2.14e-05   6.87e-04  -1.03e-03  -3.43e-04   2.60e-04
## 319   -1.45e-02  -1.73e-02   7.38e-03   2.92e-02   2.32e-02   1.26e-02   5.15e-03
## 320    5.83e-04  -1.52e-02   2.91e-04   1.41e-02   4.72e-03   6.25e-03   1.52e-03
## 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
## 323   -2.27e-04   1.81e-03  -2.46e-03   4.82e-03  -2.49e-03  -3.03e-03   5.29e-04
## 324   -2.08e-03   1.66e-03  -1.25e-03   1.98e-03   8.72e-03   9.62e-03   2.14e-03
## 325    2.09e-03  -2.01e-03  -5.40e-04   1.19e-02  -2.88e-03  -1.70e-03   3.85e-04
## 326   -7.37e-03   7.53e-02   1.33e-02  -6.92e-02  -1.66e-02  -1.17e-02   4.37e-03
## 327   -2.89e-02  -2.32e-02   2.43e-02   3.79e-02   1.39e-02   1.20e-02   1.06e-02
## 328   -4.35e-03   2.36e-03  -3.07e-03   9.25e-04   9.44e-03   1.26e-04  -1.73e-03
## 329    3.11e-03   1.35e-02   2.73e-03  -2.44e-02  -9.15e-03   1.21e-02   5.59e-03
## 330   -1.93e-03  -6.58e-03  -1.35e-03  -3.03e-03   6.99e-03   4.08e-03  -4.34e-03
## 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
## 335    1.78e-02  -6.90e-03   2.47e-03  -9.15e-03  -2.24e-02  -1.09e-02  -3.06e-03
## 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
## 338    4.69e-03   2.79e-03  -7.55e-03   4.32e-03  -7.63e-03  -5.94e-03   6.46e-04
## 339    8.18e-03  -9.23e-02  -1.71e-02   8.21e-03   2.84e-02   2.79e-02  -3.31e-03
## 340    6.63e-03   6.47e-03   3.25e-03   3.94e-03  -1.36e-02  -4.64e-03  -3.75e-03
## 341   -8.43e-03  -9.37e-03   5.65e-04  -3.02e-03   1.70e-02   9.03e-03   1.50e-03
## 342   -2.20e-03  -5.23e-02  -2.11e-02  -9.52e-03   3.73e-02   8.01e-03  -1.45e-02
## 343    1.40e-02  -8.99e-04  -9.85e-03   4.56e-03  -1.07e-02  -9.50e-03  -2.08e-03
## 344   -3.97e-03   4.78e-03  -1.40e-02   2.94e-02   3.80e-02   1.20e-02   7.31e-04
## 345    9.69e-03  -1.78e-03  -4.76e-03   2.51e-03  -8.58e-03  -1.26e-03   2.26e-03
## 346   -4.09e-02  -2.67e-02   3.85e-02   3.53e-03   1.69e-02   9.46e-03   3.10e-03
## 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
## 350    5.82e-04   1.36e-03   5.09e-05  -3.52e-03  -2.70e-03  -7.88e-04  -3.23e-04
## 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
## 355    -2.17e-03 -1.65e-03  6.79e-04  5.07e-03  4.56e-03  2.09e-04 -1.49e-04
## 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
## 360     6.22e-04 -1.08e-02 -3.43e-03  4.28e-04  1.09e-02  5.38e-03 -7.24e-04
## 361    -3.10e-02 -1.61e-02 -4.66e-03  3.02e-02  6.17e-02  1.16e-02  1.30e-02
## 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
## 365    -4.85e-04  1.52e-03 -1.12e-03  3.24e-03 -5.52e-04 -1.55e-03 -1.03e-02
## 366     6.25e-03 -6.32e-03 -3.00e-03 -9.91e-04 -1.11e-02  5.40e-03 -9.25e-04
## 367     4.89e-03 -4.86e-03 -3.51e-03  5.11e-04 -1.67e-03 -2.97e-03 -1.36e-03
## 368     2.06e-02  1.51e-03 -1.02e-02 -3.03e-02 -5.08e-04  3.28e-03 -2.31e-03
## 369    -9.00e-04 -8.34e-04 -4.29e-03 -3.49e-03  2.27e-03 -1.01e-03  2.52e-03
## 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
## 372    -7.45e-03  6.51e-03  7.85e-03  1.88e-02 -4.33e-03 -1.55e-02  4.35e-03
## 373     7.65e-03 -1.01e-02 -4.88e-03  3.07e-03  2.39e-03 -7.30e-03  2.81e-05
## 374     4.95e-04 -1.31e-04  1.12e-03 -2.15e-03 -3.70e-04 -1.86e-04 -7.74e-05
## 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
## 377     1.02e-03 -2.07e-03  3.05e-03 -1.97e-03 -3.65e-03  1.99e-03 -7.88e-04
## 378     1.99e-03 -6.81e-03  3.18e-04 -7.07e-04  1.90e-03 -9.37e-04 -1.24e-03
## 379     2.91e-03  1.22e-04  8.92e-03 -3.84e-03 -7.97e-03 -4.74e-03  2.88e-03
## 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
## 384    -1.58e-03  3.44e-03 -1.97e-03  5.08e-03  2.89e-03 -2.48e-04 -5.09e-04
## 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
## 388     5.59e-03 -1.39e-03 -1.18e-03  1.74e-03 -4.98e-03 -3.03e-03  8.66e-04
## 389    -1.54e-03 -4.79e-04  2.07e-03  5.44e-04 -1.05e-03  6.33e-04 -7.48e-04
## 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
## 393     9.55e-03 -2.07e-02  4.63e-03 -1.53e-02 -2.71e-03  2.04e-02 -2.12e-02
## 394    -8.36e-03 -1.10e-03  4.04e-03 -1.26e-02  8.82e-03 -1.53e-02 -3.71e-02
## 395    -2.04e-03 -3.89e-03  4.33e-03 -2.01e-03 -1.66e-03 -2.11e-03  1.90e-03
## 396     7.17e-03 -4.57e-03 -7.05e-03 -1.95e-03  2.52e-03 -7.76e-03 -8.41e-03
## 397     1.17e-03 -4.45e-03 -1.11e-03  2.07e-04  1.29e-03 -1.27e-03 -2.19e-03
## 398    -8.63e-04 -2.93e-03  4.62e-03 -4.31e-03 -2.02e-03 -2.26e-03  3.18e-03
## 399     7.80e-04 -7.21e-04 -1.45e-04  1.62e-04 -8.51e-05  4.72e-04  2.46e-04
## 400     6.11e-03 -2.83e-03  1.05e-03  1.93e-03 -4.29e-03 -4.28e-03  7.79e-04
## 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
## 404     2.09e-04  1.68e-03 -1.44e-03 -2.41e-03  2.46e-03 -2.83e-03 -2.49e-03
## 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
## 407   -4.39e-03  -1.63e-02   4.93e-03  -9.29e-03  -8.15e-03   1.60e-02   7.12e-03
## 408    8.92e-03  -4.78e-03  -3.70e-03  -5.43e-03  -1.41e-02   2.67e-03   3.22e-03
## 409   -1.29e-03  -3.17e-03   1.42e-03  -2.10e-03  -5.38e-03  -3.37e-03   4.96e-04
## 410   -5.95e-03  -5.91e-03  -3.76e-03  -2.11e-02   3.53e-03  -3.90e-03  -1.79e-03
## 411    1.09e-02   9.10e-03  -3.60e-02  -2.42e-02   3.13e-03  -9.36e-04   1.31e-03
## 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
## 414   -5.00e-04   1.20e-03   3.36e-03   5.21e-03   9.08e-04   1.06e-03  -1.54e-05
## 415   -1.57e-02  -2.96e-03  -2.32e-03  -3.87e-03  -9.78e-03  -8.90e-03  -1.55e-02
## 416    1.39e-02  -1.28e-02  -5.90e-03  -1.49e-02  -1.41e-03   1.36e-02   8.78e-04
## 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
## 419   -1.21e-02   2.86e-03   1.76e-02  -1.58e-02  -1.25e-02   2.25e-02   1.14e-02
## 420   -2.21e-04  -7.94e-04   4.08e-03   1.31e-02  -7.44e-03   3.46e-05   2.12e-03
## 421   -2.58e-04   4.68e-04  -1.63e-04   6.39e-04   2.24e-04  -1.28e-04  -1.61e-03
## 422    3.22e-02  -4.48e-02  -2.40e-02  -7.91e-02  -6.16e-03   5.89e-02   1.05e-02
## 423    8.28e-03   1.00e-02   5.56e-03   8.16e-03   5.29e-03  -4.46e-02  -1.67e-02
## 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
## 426    1.27e-03   2.36e-03  -3.11e-03   6.30e-03   7.86e-03  -6.08e-03  -5.31e-03
## 427   -4.14e-03   2.47e-03  -3.20e-03   4.12e-03  -5.77e-03   4.55e-03   6.64e-03
## 428    3.12e-03   3.76e-03  -8.74e-04  -1.94e-02  -7.35e-03   3.00e-03   4.05e-03
## 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
## 431   -9.08e-05   8.53e-04  -1.24e-03  -1.97e-04   1.31e-03   3.45e-03   1.10e-03
## 432    3.95e-03  -5.65e-03  -1.61e-03  -3.48e-03  -1.98e-03   1.88e-03   1.60e-03
## 433    1.46e-04  -2.94e-03   6.84e-04  -7.17e-04  -3.02e-03   3.14e-04   1.02e-03
## 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
## 438    3.27e-04   1.26e-03  -2.55e-03   3.50e-03   4.86e-03   7.69e-04  -1.13e-03
## 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
## 442    7.35e-05   1.07e-03  -8.03e-04   1.84e-02   1.19e-02  -8.78e-03   1.94e-02
## 443    9.29e-04   1.52e-04   2.41e-04   7.43e-04  -1.44e-03   2.55e-03   4.69e-04
## 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
## 446   -8.65e-03  -3.92e-04   1.52e-02  -1.24e-02   7.16e-03   3.13e-02   9.23e-03
## 447    2.45e-03   3.57e-03   1.38e-02  -4.86e-02  -3.09e-02   5.67e-02   2.79e-02
## 448    2.03e-02   4.68e-02  -7.58e-02   5.59e-02  -1.28e-02  -6.00e-02   9.05e-03
## 449   -3.95e-03   2.14e-04   4.17e-03   2.33e-04   3.97e-03  -5.32e-03  -4.29e-03
## 450    1.69e-03  -5.40e-05  -3.81e-04  -2.38e-03  -4.24e-03  -2.90e-03  -1.66e-04
## 451   -5.80e-03   1.94e-03   1.14e-02   1.08e-02  -5.99e-03  -2.04e-02  -8.95e-03
## 452   -2.03e-05  -8.50e-05   6.88e-05  -2.70e-04  -3.96e-04  -1.10e-03   3.35e-04
## 453    1.87e-02  -2.73e-02  -2.11e-02  -2.48e-02  -1.51e-02  -7.42e-03  -5.14e-03
## 454    7.30e-03   6.30e-03  -9.07e-03  -1.37e-02   1.78e-02   1.38e-02   1.21e-04
## 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
## 458   -9.31e-03   1.59e-02  -2.27e-02   6.43e-03  -4.18e-02  -1.51e-02  -2.53e-02
## 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
## 461  -3.41e-02   4.02e-03   2.20e-02   3.38e-02   1.72e-02  -2.09e-02   1.74e-03
## 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
## 464  -7.96e-03   6.87e-02  -6.42e-03  -7.34e-02   5.05e-02   4.22e-02   7.19e-03
## 465  -3.19e-02   2.66e-02   2.52e-02   7.47e-03   9.42e-03   1.59e-02   3.25e-03
## 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
## 468   2.07e-03  -6.63e-03   1.91e-03  -2.53e-03   8.29e-03   1.87e-03   4.07e-04
## 469   9.59e-02  -2.47e-02  -4.79e-02  -4.36e-03  -7.23e-02   1.96e-02  -1.96e-02
## 470  -3.59e-03   1.53e-03  -3.25e-03   1.07e-02   6.89e-03  -5.36e-03   7.33e-04
## 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
## 473   4.82e-03  -4.20e-03  -5.97e-03  -1.03e-02   7.66e-03   7.51e-03   2.18e-03
## 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
## 477  -1.50e-04   8.32e-03  -1.86e-03   7.29e-04   1.45e-02  -3.02e-03   5.67e-03
## 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
## 480   1.16e-02  -3.53e-02  -6.61e-03  -3.39e-02   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
## 482  -1.55e-03  -1.80e-03   2.34e-03   2.08e-03   2.35e-03   7.73e-04   3.46e-03
## 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
## 486   5.17e-03  -3.27e-02  -1.60e-02   1.16e-02  -1.05e-02  -3.58e-03  -1.29e-02
## 487  -3.48e-02   4.69e-02  -3.71e-03  -3.57e-02   4.69e-02   1.11e-02   2.23e-02
## 488   6.50e-03  -1.07e-03  -2.38e-03   1.05e-03  -6.94e-03  -3.45e-04  -2.44e-03
## 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
## 492   3.89e-02   2.02e-02   2.34e-02   3.16e-03  -6.28e-02  -6.06e-02  -1.62e-02
## 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
## 496  -3.00e-02   1.05e-02   3.00e-02   2.99e-02   1.15e-02  -5.78e-03   1.29e-02
## 497   1.11e-03   4.63e-02   1.51e-02  -3.16e-02  -1.39e-03   5.58e-03   1.15e-02
## 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
## 500  -2.11e-03  -8.52e-04   2.11e-03  -2.41e-04   2.86e-03   5.24e-04   3.83e-03
## 501   1.12e-03  -8.29e-04   6.98e-04   1.88e-03  -4.84e-04   2.52e-03   1.16e-03
## 502  -1.14e-04  -4.59e-05   2.40e-04  -5.91e-05  -1.40e-04   1.34e-04   1.62e-04
## 503  -4.71e-03   2.45e-03   5.81e-03  -2.85e-03   6.29e-03  -9.23e-04  -5.77e-03
## 504  -7.80e-04   1.87e-03   4.52e-03   2.89e-03  -4.97e-03  -5.83e-03  -1.87e-03
## 505  -1.45e-02  -7.61e-03   2.68e-02   2.09e-02   1.86e-02  -2.51e-02  -1.42e-02
## 506  -3.13e-03   5.29e-03   5.93e-04   1.07e-02   3.56e-04   1.38e-03   1.76e-03
## 507   8.45e-04  -4.43e-03   1.02e-03  -9.06e-03  -4.95e-03  -1.30e-03   5.81e-03
## 508  -2.99e-04  -9.15e-03   9.76e-03   2.44e-03   1.24e-02   1.16e-02  -1.30e-03
## 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
## 512  -1.46e-02  -3.03e-02   4.39e-02   4.05e-02  -3.12e-02  -7.75e-02  -2.16e-02
## 513   6.08e-03  -7.84e-03   5.60e-03  -2.06e-03  -5.17e-04  -3.02e-03  -6.09e-03
```

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## 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
## 517    1.09e-02  -4.87e-03  -8.80e-03  -9.49e-03  -1.26e-02   1.07e-02   6.40e-03
## 518   -7.95e-03  -2.78e-02   5.39e-02   5.91e-03  -1.42e-03  -5.61e-02  -3.25e-02
## 519   -1.30e-03   3.26e-03  -3.28e-03   5.08e-03   5.13e-04  -2.50e-03   3.74e-03
## 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
## 522   -1.32e-02  -9.05e-02   8.40e-02  -2.37e-02  -4.66e-02  -9.85e-02  -4.06e-02
## 523   -3.14e-02  -1.75e-02   4.52e-02  -1.36e-02  -1.88e-02  -1.44e-02   6.34e-03
## 524    3.49e-02   2.73e-02  -4.84e-02   2.04e-02  -5.14e-02  -7.79e-02   1.13e-02
## 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
## 527   -6.32e-04   2.80e-04   4.99e-03   8.85e-04   8.83e-03  -4.79e-03  -5.05e-03
## 528    4.56e-03  -3.88e-04  -1.69e-03  -5.99e-03  -6.29e-05   3.66e-04  -2.43e-03
## 529   -3.03e-03  -2.72e-02  -1.07e-03  -1.58e-02   3.39e-02   2.23e-02   1.32e-03
## 530    3.51e-03   3.14e-03  -4.09e-03  -3.83e-03   2.33e-03  -2.39e-03  -5.15e-03
## 531    4.15e-03   4.49e-03  -7.91e-04   8.09e-03   2.65e-03   4.64e-03  -1.00e-03
## 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
## 534    2.72e-03  -3.72e-03  -1.14e-03  -1.78e-03  -3.33e-03  -2.17e-03  -1.42e-03
## 535    2.51e-03  -9.16e-03   1.32e-02  -2.11e-03  -4.12e-03  -2.97e-03  -5.32e-03
## 536    3.99e-04  -3.67e-04  -4.08e-04  -5.67e-04  -8.87e-05   2.31e-04   1.56e-04
## 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
## 539    3.40e-05   6.31e-04   3.51e-04  -1.68e-03  -1.07e-03  -1.97e-03  -9.60e-04
## 540    9.61e-03   2.00e-02  -7.66e-03  -4.26e-03  -1.73e-02   1.13e-02   2.77e-03
## 541   -1.59e-03   9.35e-04   3.22e-03   1.44e-03  -1.32e-03  -5.13e-03  -1.90e-03
## 542    1.73e-03  -1.84e-03  -1.25e-03  -2.74e-03  -1.60e-03   2.10e-03   5.52e-04
## 543    8.57e-03  -1.67e-02  -3.72e-03   8.08e-03   2.57e-03  -7.13e-03  -2.58e-03
## 544    3.69e-02   3.73e-03  -1.06e-02  -8.56e-03  -1.83e-02   3.49e-02   1.79e-03
## 545   -1.03e-02  -1.99e-02   2.39e-02   7.64e-03   7.26e-03  -1.68e-02  -4.10e-03
## 546    4.35e-03   2.66e-03  -4.60e-03   1.18e-03  -1.85e-03   8.95e-04   4.12e-05
## 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
## 551   -6.49e-03  -1.29e-02   2.28e-02   3.48e-03  -1.72e-03   1.14e-03   7.87e-03
## 552   -5.10e-03   6.11e-03  -7.73e-03   4.44e-02   2.05e-02   9.20e-03   1.35e-02
## 553    2.31e-02  -1.70e-02  -4.05e-03  -1.43e-02   1.58e-03  -4.20e-03  -1.40e-02
## 554    1.78e-02  -4.57e-02  -1.27e-02  -4.75e-02   9.33e-03  -1.12e-02  -1.89e-02
## 555    5.78e-03   1.16e-02  -6.28e-03   1.09e-02  -2.02e-03  -7.14e-03  -1.09e-03
## 556   -2.62e-02   2.70e-03   3.72e-03  -3.36e-02   4.59e-02  -3.98e-03  -1.77e-02
## 557    3.46e-03  -1.13e-02  -2.24e-03  -8.27e-03  -9.75e-03  -6.36e-03   7.00e-03
## 558   -3.22e-05  -2.65e-04   1.61e-04  -1.12e-04  -1.40e-04  -2.90e-04  -1.32e-04
## 559   -5.71e-03  -1.19e-02   6.68e-02   6.61e-02  -5.00e-02  -1.36e-02   1.13e-02
## 560    3.90e-03  -6.15e-03  -4.20e-03   4.48e-03  -9.80e-03  -1.63e-02  -6.89e-03
## 561   -2.61e-02   2.09e-02   3.16e-02   1.87e-02  -6.98e-03  -6.63e-03  -6.80e-03
## 562    1.93e-02  -2.68e-02   1.25e-03  -3.23e-04   3.75e-02  -4.15e-02  -2.83e-02
## 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
## 566    6.31e-03   1.49e-02   1.38e-02  -1.52e-02  -1.43e-04   1.07e-02  -6.84e-03
## 567    1.48e-03   3.07e-03   8.07e-03   1.40e-02  -1.18e-02  -3.43e-03  -4.19e-05
```

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## 568    3.08e-03   3.18e-04  -2.17e-03  -9.20e-04  -1.18e-03  -2.49e-03  -1.19e-03
## 569   -8.57e-04  -4.37e-03  -1.19e-03   2.34e-03   4.66e-03  -3.22e-03  -5.98e-03
## 570    2.29e-02  -4.40e-03   1.22e-02  -3.33e-03  -2.81e-02   2.56e-02   3.60e-03
## 571    3.18e-03  -2.12e-02   1.38e-02   4.03e-03  -1.13e-02  -2.09e-02  -9.28e-03
## 572   -6.44e-05  -1.67e-05   9.36e-05   4.52e-05  -2.80e-06   1.18e-05   3.28e-05
## 573   -1.92e-02  -1.18e-02   1.54e-02   6.24e-04   1.51e-02   1.76e-02   2.71e-02
## 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
## 576   -2.69e-02   1.58e-03   1.68e-02   1.05e-02   7.86e-03  -4.84e-03  -3.45e-02
## 577   -5.85e-03  -9.52e-03   5.09e-03  -9.00e-03   1.61e-03  -8.20e-03  -3.97e-03
## 578   -5.26e-03   1.82e-03  -5.80e-03  -1.50e-02   1.14e-02  -8.04e-03  -7.23e-03
## 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
## 581    3.45e-03   1.01e-04   5.95e-03  -6.99e-03  -6.03e-03   4.53e-03  -1.81e-03
## 582    1.31e-03   1.25e-02   1.89e-02  -6.89e-03  -6.12e-03   4.02e-03  -4.09e-03
## 583   -2.95e-03  -1.95e-03   4.03e-03   5.23e-04  -4.42e-04  -1.75e-03  -1.56e-03
## 584   -1.92e-02   1.97e-02   7.64e-03  -4.49e-03   5.10e-03   1.17e-02  -3.07e-03
## 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
## 588    5.75e-03   7.46e-03   3.63e-03  -1.82e-02  -2.01e-02   3.47e-04   6.11e-04
## 589   -3.53e-03   4.31e-03   7.19e-03   1.06e-02  -1.35e-02  -5.09e-03   7.57e-04
## 590    1.74e-02   3.06e-03  -3.42e-02   8.91e-03   3.12e-02  -2.83e-03  -1.01e-02
## 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
## 593    2.06e-02  -1.98e-03   3.95e-03  -1.55e-02  -3.09e-02   3.20e-03  -1.28e-02
## 594    2.10e-02   5.03e-04  -2.25e-02  -3.98e-03  -6.75e-03  -7.03e-03  -2.05e-02
## 595   -4.99e-03  -1.09e-03   8.48e-03   5.75e-03  -2.03e-02  -1.25e-02  -3.00e-03
## 596   -3.77e-03  -5.74e-04   5.38e-04  -3.10e-04  -1.90e-03  -3.91e-03  -1.18e-03
## 597    2.75e-02   1.60e-02  -7.99e-03   1.13e-02  -1.02e-01  -2.96e-02   2.32e-02
## 598   -3.41e-02   2.69e-02   3.19e-02  -1.79e-02   3.09e-03  -1.23e-02   3.22e-03
## 599    2.40e-02   5.98e-03  -2.39e-02   1.32e-02  -1.59e-02  -1.31e-02  -1.53e-02
## 600   -2.47e-02  -2.59e-03  -1.08e-02  -1.38e-02   8.36e-03   2.58e-02   1.59e-03
## 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
## 604    6.12e-02   3.63e-02  -6.35e-02  -3.91e-02   4.93e-02   3.48e-02  -9.54e-03
## 605   -2.52e-02   1.48e-02   8.50e-03  -5.20e-02   1.03e-02   6.96e-03   6.19e-03
## 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
## 608   -1.69e-02   8.50e-03   1.00e-02   1.25e-02  -5.85e-03  -1.46e-02   2.02e-03
## 609    3.24e-02  -5.77e-02  -3.33e-02  -3.17e-02   3.64e-02   2.03e-03  -2.27e-02
## 610   -3.45e-02  -1.19e-02   1.70e-02  -3.66e-02   2.23e-02  -2.01e-02   2.29e-03
## 611   -2.79e-02  -2.20e-02   4.89e-03  -3.75e-02   1.50e-02   1.67e-02   5.29e-03
## 612   -2.72e-03   1.09e-03  -4.79e-03  -3.91e-03   6.85e-03   1.63e-03   5.04e-05
## 613    1.43e-02  -1.18e-02  -4.25e-02  -1.33e-02   6.47e-02  -7.24e-03  -2.17e-02
## 614   -1.04e-02   1.12e-02  -2.67e-04  -2.15e-02  -4.76e-03  -1.15e-02  -5.28e-03
## 615    5.84e-04   3.89e-05  -5.10e-04  -2.53e-04  -2.24e-04   1.52e-04  -5.19e-05
## 616   -5.53e-02  -4.07e-02   9.66e-03   3.81e-02   5.97e-02   6.21e-02   2.09e-02
## 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
## 620   -1.60e-02   5.53e-03   4.73e-03   1.39e-02   6.49e-03  -2.91e-02  -4.23e-03
## 621    4.06e-02  -9.16e-02   1.19e-02  -5.04e-02   4.35e-02   4.91e-02  -1.89e-03
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## 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
## 625   -7.64e-03  7.57e-03  2.20e-03 -1.61e-02  6.09e-02  3.23e-02  4.41e-03
## 626    2.49e-02  2.55e-02 -4.13e-02 -2.18e-02  5.22e-02 -7.87e-03 -2.28e-02
## 627    7.04e-02 -5.57e-02 -2.25e-02  1.42e-01 -6.00e-02 -5.66e-03 -7.86e-03
## 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
## 630    1.49e-02 -2.15e-02 -3.85e-02 -3.69e-02  4.42e-02  2.33e-02  8.60e-03
## 631    1.02e-03 -4.28e-03 -1.50e-03 -3.39e-03  4.69e-03  2.08e-03  1.50e-03
## 632    7.50e-05  4.68e-03  3.02e-03  1.43e-02  6.34e-03 -1.29e-03  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
## 637    2.83e-03 -1.17e-02 -6.52e-03  5.54e-04 -1.90e-03 -9.06e-04 -5.53e-03
## 638   -8.77e-03  1.03e-02 -1.28e-02 -8.26e-03 -4.85e-03 -1.15e-02 -1.12e-02
## 639    8.53e-03  3.42e-02 -1.21e-02 -5.02e-03  1.22e-02  1.11e-02  1.00e-02
## 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
## 642   -4.38e-02  1.26e-02  3.23e-02  2.47e-02  3.99e-02 -1.57e-02  1.22e-02
## 643   -4.97e-03 -4.25e-02  3.77e-03 -1.02e-02  3.85e-02  6.05e-03  3.92e-03
## 644    2.93e-03 -2.52e-03 -3.78e-03 -4.53e-03  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
## 647   -3.45e-02 -2.68e-04  9.80e-03 -3.32e-03  4.92e-03 -1.53e-02 -1.15e-02
## 648    9.01e-03 -7.08e-03  7.30e-03 -2.54e-03 -1.07e-02  7.13e-04 -5.18e-04
## 649   -5.45e-03  1.62e-02  5.67e-03  3.01e-02  1.38e-02 -5.62e-03  1.28e-02
## 650   -7.72e-02  2.28e-02  3.69e-02 -5.26e-02  2.10e-02 -5.95e-03  2.93e-02
## 651    2.64e-04  9.90e-05 -4.59e-04 -1.91e-05 -2.88e-04  4.79e-05 -4.43e-04
## 652   -1.21e-03 -1.81e-03  1.12e-03  1.65e-03  1.25e-03 -1.46e-03  5.72e-04
## 653    4.52e-03  1.66e-03 -3.33e-03 -5.22e-03 -2.73e-03  1.79e-03  7.37e-04
## 654   -8.90e-03  3.96e-03  1.62e-05 -4.73e-03  8.32e-03 -1.59e-03  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
## 659    1.18e-03 -1.06e-03  1.56e-03 -1.19e-03  3.46e-03 -3.75e-04  1.78e-03
## 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
## 662   -1.91e-02  1.00e-03  4.44e-04  7.92e-03 -4.28e-04 -1.21e-02 -4.32e-03
## 663    1.95e-03  4.75e-03 -6.03e-03 -7.04e-03  1.03e-02  3.23e-03  1.44e-03
## 664   -1.84e-02 -8.12e-03  1.65e-02  3.29e-02  7.89e-03 -2.65e-02 -3.27e-03
## 665    1.64e-04  3.52e-04  2.13e-04  2.52e-04  2.68e-04  2.32e-04  2.55e-04
## 666    2.29e-02  1.74e-02  1.20e-02  8.14e-02 -8.69e-02 -3.20e-02 -1.47e-02
## 667    1.67e-03  1.92e-03 -3.93e-04  1.28e-03 -2.16e-03  7.03e-04 -2.00e-04
## 668   -1.35e-04 -3.55e-04  6.43e-04  4.39e-04 -1.17e-03 -3.86e-04 -1.98e-04
## 669    2.87e-03  5.80e-04 -2.53e-03 -4.67e-04  4.80e-03  1.56e-03  4.90e-03
## 670    2.04e-02 -6.68e-02 -8.45e-03  3.54e-02 -2.04e-02  2.90e-03 -2.27e-02
## 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
## 674    2.90e-02 -2.29e-02 -3.13e-02  1.10e-02 -1.19e-02  1.70e-02  5.68e-03
## 675    3.55e-03 -4.89e-03 -9.11e-03 -1.51e-02  1.51e-02  1.04e-02  1.95e-03
```

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```
## 676  -4.10e-03  2.52e-03  8.32e-04  3.91e-03  1.38e-03 -2.86e-03 -1.64e-03
## 677  -3.10e-03 -7.96e-04  4.14e-05  2.90e-03  6.98e-03 -4.87e-03  1.12e-03
## 678  -5.47e-03 -5.40e-03 -5.50e-04  7.11e-03  1.19e-02 -2.22e-03  4.61e-03
## 679  -2.20e-04  1.30e-04  3.71e-03 -1.11e-03  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  6.14e-03
## 681  -1.25e-02  1.11e-02  4.31e-03 -7.66e-03  1.24e-02 -2.30e-03  3.99e-03
## 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
## 684  -5.13e-03  1.27e-02  1.12e-02  1.12e-02  1.91e-03 -6.80e-03  4.05e-03
## 685   6.73e-03  6.41e-05 -3.24e-03  6.92e-03 -2.93e-03  5.44e-04 -1.10e-03
## 686  -1.70e-03 -1.08e-02  2.69e-03 -1.57e-03 -5.40e-03 -2.60e-03 -1.71e-03
## 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
## 689  -3.29e-03  1.51e-03  4.04e-03  3.69e-03 -1.31e-04 -1.03e-03  2.09e-03
## 690  -1.08e-02 -1.29e-02 -2.93e-03  1.50e-02 -2.95e-02 -2.09e-02 -1.24e-02
## 691   2.39e-03 -2.45e-03 -1.73e-03 -3.80e-03 -3.10e-03  1.66e-03 -1.71e-03
## 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
## 696   8.47e-05 -7.84e-03 -6.20e-03 -1.15e-03 -5.47e-03 -9.24e-03 -1.40e-02
## 697  -6.68e-03  3.09e-03  1.89e-03  3.02e-03  2.98e-03 -5.78e-03  1.56e-03
## 698   1.05e-02  2.57e-03 -7.23e-04 -2.93e-03 -9.18e-03 -2.47e-03  3.18e-04
## 699  -1.46e-02 -1.14e-02  2.05e-02  2.25e-02  2.01e-02  2.00e-02  3.63e-03
## 700  -2.57e-03 -7.36e-03  1.75e-02 -4.83e-03 -4.47e-03  2.00e-02  7.19e-03
## 701  -1.80e-03  4.86e-03 -1.76e-03 -4.90e-03  8.14e-04  2.59e-03  1.79e-04
## 702  -8.26e-03 -1.12e-02  1.46e-02 -4.93e-04 -7.61e-03 -3.76e-03 -1.74e-03
## 703   3.44e-03 -1.24e-03 -1.64e-03 -3.35e-03 -5.70e-04  6.87e-03  2.09e-03
## 704  -1.16e-02  1.62e-02  1.50e-02  2.74e-03 -3.16e-03  2.45e-02  1.38e-02
## 705  -6.72e-04  2.06e-04  4.14e-04  2.34e-04  1.22e-03  3.29e-04 -3.80e-04
## 706  -1.35e-02 -2.81e-03  1.39e-02 -1.35e-03  6.55e-03 -6.03e-03 -8.43e-03
## 707  -4.77e-03  3.70e-03  1.74e-03  6.97e-03  1.19e-02 -3.55e-04 -3.24e-03
## 708  -2.16e-02  9.28e-03  2.16e-02  4.87e-03  2.10e-03  4.59e-03  4.98e-03
## 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
## 712  -1.91e-03 -8.18e-04  1.03e-03 -2.69e-04 -1.11e-04  2.08e-03  8.72e-04
## 713  -1.36e-02  7.25e-03  1.37e-02  2.30e-03  4.64e-03  2.71e-02  1.19e-02
## 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
## 717   1.62e-02  3.77e-03 -1.57e-02  2.23e-04  8.01e-03  2.85e-02  1.09e-02
## 718  -9.89e-03  5.02e-04  9.26e-03 -3.23e-03  7.23e-03  6.99e-03 -4.13e-03
## 719  -2.57e-02  5.97e-03  1.99e-02  7.63e-03  4.50e-03  7.09e-03  5.79e-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  2.89e-03
## 722  -1.80e-02  2.78e-02  1.17e-02  2.86e-03  6.83e-03  9.69e-03  1.06e-03
## 723   5.34e-04  1.15e-04 -4.11e-04 -3.07e-04 -8.45e-04 -6.03e-04 -1.80e-04
## 724  -1.61e-04  1.52e-04  1.90e-04  1.17e-04  1.34e-04  4.58e-05 -4.46e-05
## 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
## 728   5.11e-04  2.87e-04 -3.00e-03 -3.56e-03  1.55e-03  4.04e-04 -3.93e-04
## 729  -1.68e-03  1.59e-04  2.58e-03  2.90e-03 -3.06e-03 -4.91e-03 -1.03e-03
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## 730  -8.51e-03   1.11e-02   7.97e-03  -5.15e-04  -3.80e-03   5.40e-03   7.89e-03
## 731  -1.32e-04  -1.04e-02  -5.71e-04  -2.91e-03   1.10e-03   6.42e-03  -3.15e-03
## 732   1.82e-02  -4.11e-03  -4.20e-03  -7.02e-03  -1.03e-02   1.09e-03  -3.78e-03
## 733  -6.96e-03  -1.73e-03   4.22e-03   1.93e-03   6.96e-03   5.33e-03   1.13e-03
## 734  -2.62e-03  -7.58e-03  -9.60e-03  -5.18e-03   2.87e-02   1.82e-02   9.74e-04
## 735  -6.49e-03   1.25e-02   7.54e-03  -2.38e-03  -3.25e-03   6.52e-03   4.05e-03
## 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
## 738   2.87e-03   1.97e-02  -8.46e-03  -9.41e-03   9.41e-03   9.49e-03  -4.32e-03
## 739   6.06e-04  -1.91e-03  -1.63e-03  -5.15e-03   1.26e-03   6.71e-04  -2.70e-03
## 740  -1.07e-02   1.97e-04  -2.65e-02  -1.19e-02   4.79e-02   3.20e-02   9.43e-03
## 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
## 744   2.46e-02  -6.05e-03  -2.56e-02   5.19e-03   3.47e-03  -4.18e-03  -4.50e-03
## 745  -2.01e-02  -2.52e-03   1.51e-02   1.61e-03   1.77e-02   9.47e-03   1.75e-03
## 746  -3.90e-02   1.40e-02   4.31e-02   4.20e-03  -2.58e-03   7.30e-03   9.49e-03
## 747  -7.21e-03  -1.30e-02   9.52e-03   7.55e-03   2.76e-03  -2.17e-02  -9.05e-03
## 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
## 750   4.74e-03  -2.40e-03   3.66e-03  -8.05e-03   9.32e-04   1.14e-02   1.23e-03
## 751   1.74e-02  -1.64e-02  -1.46e-02   5.72e-04  -9.79e-03  -1.55e-02  -1.87e-03
## 752  -5.03e-03   2.34e-03   2.86e-03   3.29e-03   2.58e-03   1.80e-03   9.91e-04
## 753  -2.40e-04   2.92e-04  -8.07e-05  -2.49e-04   2.14e-04  -5.69e-05  -1.36e-04
## 754   2.02e-03  -6.34e-04   1.42e-04  -7.87e-03  -5.36e-04  -1.49e-03   1.27e-03
## 755  -3.01e-03   3.85e-02  -2.52e-02  -3.92e-02   4.34e-02   6.63e-02   1.60e-02
## 756  -3.27e-02   9.91e-03   3.44e-02   1.50e-02   1.18e-02  -3.16e-03  -6.07e-03
## 757  -2.76e-03  -7.28e-03  -4.81e-04  -1.40e-03   1.64e-03  -4.45e-03  -2.92e-03
## 758   3.30e-03  -2.50e-03   4.96e-03  -2.10e-03  -6.79e-03  -2.72e-02  -6.67e-03
## 759  -3.09e-02   2.61e-02   2.65e-02  -4.71e-03  -2.46e-02  -8.77e-04  -2.67e-03
## 760  -4.27e-02   3.57e-02   2.45e-02   1.66e-02   2.35e-02   7.41e-03   1.35e-02
## 761  -4.77e-04   2.66e-04   5.97e-04   5.21e-04   7.00e-05   5.21e-04   1.27e-04
## 762   4.32e-04  -4.02e-03   3.79e-03   4.00e-03   2.27e-05   3.48e-03   2.33e-03
## 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
## 767   1.08e-02  -9.31e-03   1.01e-02  -7.17e-03  -2.10e-02  -2.14e-02  -1.36e-02
## 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
## 771  -1.50e-02  -1.48e-02   3.16e-02  -7.41e-03   3.15e-02   1.16e-02  -1.83e-02
## 772  -1.15e-02   4.48e-04   1.14e-02  -7.62e-04   4.84e-03   6.03e-03   2.76e-03
## 773   1.65e-02   9.28e-05  -1.32e-03   6.23e-03  -1.01e-03   2.02e-02  -5.39e-03
## 774  -1.81e-03   1.56e-03  -3.84e-03  -2.64e-03   2.09e-03  -2.94e-03  -1.57e-03
## 775  -1.31e-02  -3.98e-02   7.77e-02  -2.00e-02  -1.22e-01  -5.53e-02   8.43e-03
## 776   2.45e-02  -3.15e-03  -1.82e-02  -3.83e-02  -9.08e-03   3.37e-03  -3.87e-03
## 777  -2.14e-02  -2.76e-02   9.80e-03   4.92e-03  -2.86e-03   1.23e-03   5.29e-03
## 778  -1.95e-04   6.67e-03   1.05e-02   3.17e-02  -1.00e-02  -5.04e-03   1.27e-02
## 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
## 782  -1.73e-03   1.57e-03   2.79e-03   8.05e-04  -1.28e-04   1.82e-03   1.76e-03
## 783  -3.88e-02   2.83e-02  -1.78e-02   4.32e-02   7.70e-02  -2.99e-02  -1.53e-02
```

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## 784  -1.30e-02   1.13e-02   4.22e-03  -4.64e-02   2.00e-02   1.03e-02  -7.18e-03
## 785   5.27e-03  -8.50e-04  -9.96e-03  -1.21e-03   1.20e-02  -2.88e-04  -4.74e-03
## 786   9.66e-03   1.57e-02   1.46e-02   1.84e-02  -6.04e-02   7.79e-03   1.17e-02
## 787  -2.52e-03   2.23e-02  -1.92e-02   1.05e-02   1.34e-02  -1.20e-02  -8.85e-06
## 788  -3.07e-04  -3.14e-04   5.76e-04   1.06e-03  -4.40e-04   5.44e-04   1.96e-04
## 789  -4.97e-03   2.93e-03   1.13e-03   4.82e-03   8.69e-04  -3.87e-03  -3.00e-04
## 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
## 793   1.31e-02   2.16e-03  -1.12e-02  -4.86e-03  -3.82e-03  -6.81e-03   1.36e-02
## 794  -1.17e-03   6.71e-03  -2.90e-02   1.73e-02   1.66e-02  -1.47e-02  -1.46e-02
## 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
## 804   1.48e-02   1.41e-02  -1.13e-02  -9.50e-03  -1.05e-02  -5.15e-03   6.64e-05
## 805   2.24e-02  -2.49e-03  -3.21e-02  -1.39e-02   3.06e-04   5.16e-02   1.04e-02
## 806  -1.50e-03  -7.92e-04   4.11e-04   3.37e-04   6.31e-04   2.69e-04   3.67e-05
## 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
## 809   1.32e-03  -4.51e-04  -1.71e-03   1.39e-03  -2.87e-04   1.03e-03   2.72e-06
## 810  -4.37e-04   1.17e-03   5.24e-04   5.24e-04  -9.83e-04  -1.43e-03  -3.89e-04
## 811   3.33e-03  -1.73e-04  -6.32e-03  -1.09e-02  -9.81e-04   6.87e-04  -2.50e-03
## 812  -8.67e-02  -4.88e-02   3.07e-02   4.58e-02   2.92e-02  -6.32e-03   3.64e-03
## 813  -1.84e-02   1.11e-02   2.44e-02  -1.09e-02  -5.99e-03   1.33e-03  -2.00e-04
## 814   1.02e-04   2.33e-03  -5.13e-04  -1.79e-03   3.32e-04  -1.52e-03   9.15e-04
## 815  -8.84e-04   1.79e-02   4.10e-04  -3.75e-04  -1.05e-02  -1.81e-02  -8.49e-03
## 816  -8.30e-03   7.48e-03   1.17e-02  -1.09e-03  -1.11e-02  -5.75e-03  -2.51e-05
## 817   1.28e-02   4.85e-03  -8.10e-03   7.97e-04  -7.28e-03  -4.16e-03   5.13e-03
## 818  -1.85e-03   2.16e-03   2.39e-03  -3.75e-03  -7.69e-04   1.57e-03  -1.07e-04
## 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
## 821  -8.66e-04   5.02e-03   2.41e-03  -1.46e-02  -1.04e-02   3.63e-03   3.14e-03
## 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
## 825  -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
## 827  -1.30e-04   3.11e-05  -9.41e-05  -6.99e-05   1.64e-04   2.22e-04   2.21e-05
## 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   2.50e-03
## 830  -2.78e-03  -7.60e-03   1.40e-03  -6.66e-03   4.50e-03   1.14e-02   4.46e-03
## 831  -3.51e-03  -2.68e-03   6.53e-04   2.19e-03   2.43e-03   3.66e-03   4.95e-04
## 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
## 836   8.82e-03   2.64e-03  -1.33e-02  -7.73e-03   1.88e-03  -1.10e-02  -7.02e-03
## 837   2.21e-02   4.63e-03  -9.41e-03   7.05e-03   1.11e-02  -2.61e-02  -1.32e-02
```

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## 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
## 841    6.06e-04  4.66e-03  9.57e-04 -2.10e-03 -4.04e-03 -6.55e-03 -1.77e-03
## 842    1.38e-03  6.80e-04 -9.56e-04 -3.00e-04  9.48e-04 -8.41e-04  1.23e-05
## 843   -7.86e-04 -3.50e-03  3.78e-03  1.57e-03 -1.68e-03  1.91e-03  4.97e-04
## 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
## 846    1.54e-03  1.18e-02  9.74e-03 -1.25e-02 -2.30e-02 -7.16e-03  1.09e-03
## 847   -1.91e-02  8.48e-03  3.13e-02  8.56e-03 -2.37e-02 -2.51e-02 -3.05e-03
## 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
## 851    3.37e-03  3.41e-03  1.53e-03  5.47e-04 -6.47e-03 -4.66e-03 -1.45e-03
## 852    8.71e-03 -1.90e-02 -1.56e-02  5.99e-03  2.30e-02  2.80e-02  1.04e-02
## 853   -3.36e-02 -6.62e-03  2.67e-02  8.24e-03 -4.44e-03 -1.25e-02 -2.53e-03
## 854    3.58e-02  8.40e-03 -6.16e-02 -4.16e-02  1.84e-02  7.82e-02  2.62e-02
## 855   -1.70e-02  2.07e-02  3.22e-02  8.47e-03 -2.98e-02 -1.96e-02  1.54e-03
## 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
## 858    2.25e-03  8.17e-04 -2.31e-03  2.24e-04 -2.94e-04  1.15e-03 -6.28e-05
## 859   -4.94e-04  7.57e-04 -6.93e-04 -2.94e-03 -1.08e-03 -1.30e-03  3.79e-04
## 860   -1.53e-02 -1.14e-02  1.14e-02 -1.73e-02 -4.89e-03 -5.23e-03  1.47e-03
## 861    4.55e-03  2.94e-03 -7.55e-03  4.01e-03  4.56e-03  1.00e-02 -9.14e-04
## 862   -9.22e-03 -1.15e-02  9.77e-03 -8.96e-03  8.50e-03 -1.24e-02 -4.46e-03
## 863   -4.13e-04  2.71e-05  3.69e-04 -6.33e-04  4.21e-04 -2.21e-04 -2.21e-04
## 864    1.48e-04  5.90e-04 -3.70e-04  9.91e-04  8.42e-04  1.14e-03  2.76e-04
## 865    1.04e-04  2.78e-04  9.12e-05  1.14e-04  2.53e-06  2.27e-04  1.41e-05
## 866    2.01e-04 -3.23e-04 -2.84e-04 -9.67e-04 -3.15e-04 -4.80e-04 -2.85e-04
## 867   -5.03e-04  6.33e-04  2.41e-03  1.20e-04  4.03e-05 -1.49e-03  4.38e-06
## 868    5.55e-03  1.69e-03 -3.35e-03  9.01e-03  1.00e-02  1.46e-02  1.33e-03
## 869   -1.33e-03 -3.39e-03  1.69e-03 -3.23e-03 -7.11e-04 -4.02e-03 -7.67e-04
## 870    6.91e-03  2.05e-02 -2.41e-03  2.67e-02  9.39e-03  1.40e-02  2.49e-03
## 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
## 874    3.49e-03  2.41e-04 -5.73e-03  2.12e-04  3.29e-05 -5.14e-03  2.73e-03
## 875   -2.94e-03 -5.65e-03 -1.36e-02 -2.81e-03  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
## 879    5.99e-03 -3.00e-02 -3.98e-02 -8.47e-03 -7.25e-04 -9.88e-02 -2.55e-02
## 880    2.77e-04 -1.26e-05 -2.79e-05 -2.90e-04 -2.02e-04  3.75e-04  2.21e-04
## 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
## 884    3.93e-03  2.19e-03 -1.38e-03 -3.68e-03  2.33e-03  8.72e-03 -2.59e-02
## 885   -1.03e-03 -1.00e-03 -2.91e-04  1.06e-02  8.77e-04 -6.45e-03 -4.90e-03
## 886   -1.70e-03  6.20e-03  5.98e-03 -8.96e-03  5.42e-04  1.20e-02 -3.81e-02
## 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
## 890   -1.62e-02  1.14e-02  3.46e-02  1.18e-02 -2.50e-02 -3.23e-02 -1.38e-02
## 891    2.55e-03  6.21e-04  4.52e-03 -1.49e-02  4.55e-04  7.93e-03  4.02e-04
```

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## 892  -1.23e-03 -1.22e-03 -1.28e-03 -1.34e-03  2.25e-03  1.35e-04 -2.82e-04
## 893  -2.20e-03  1.57e-02  2.18e-03 -3.36e-03  6.17e-04 -1.08e-02 -1.39e-04
## 894  -1.10e-04  1.19e-04 -1.79e-04  2.42e-04  2.22e-04 -9.90e-05 -2.74e-06
## 895   1.99e-02 -6.75e-03 -2.01e-02 -7.02e-03  7.58e-03 -3.83e-02 -2.07e-02
## 896   7.83e-03 -8.12e-03  1.24e-02 -2.13e-02 -7.12e-03  6.31e-04  1.70e-03
## 897   6.53e-03  8.00e-03  8.97e-03 -9.74e-03 -1.58e-02 -1.25e-02  2.68e-03
## 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
## 900  -3.65e-02  3.22e-02 -8.86e-02  5.60e-02  5.78e-02 -5.57e-02 -2.62e-02
## 901  -1.04e-02  1.14e-03  5.76e-03  6.46e-03  3.11e-03 -3.09e-03  1.88e-03
## 902   7.66e-02  3.38e-02 -3.54e-02  1.77e-02 -2.88e-02 -1.31e-02 -2.25e-02
## 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
## 905  -2.03e-02  2.76e-02 -6.28e-02  5.59e-02  1.95e-02 -7.79e-02 -4.08e-02
## 906   4.03e-04 -7.84e-04 -3.47e-04 -2.39e-04  1.67e-04 -2.17e-04 -3.37e-04
## 907   6.65e-02 -2.87e-03 -2.73e-02 -2.98e-02 -3.42e-02  6.73e-03 -8.33e-03
## 908   2.77e-02 -1.18e-02 -2.79e-02 -1.02e-02  1.81e-02  2.60e-05 -8.15e-03
## 909  -3.06e-04  1.44e-04  1.21e-04 -3.43e-03 -1.31e-03  5.80e-04 -4.08e-05
## 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
## 912  -1.30e-01  8.70e-02 -2.45e-02  2.19e-01 -3.10e-02 -2.03e-01 -6.37e-02
## 913  -9.69e-02  8.09e-02  2.07e-02  8.98e-02 -3.14e-02 -1.36e-01  1.12e-03
## 914   1.57e-03 -6.76e-04 -2.21e-03 -5.46e-03 -9.20e-04  1.16e-03 -1.27e-03
## 915   2.39e-02  2.32e-02 -1.08e-02  3.86e-02 -9.47e-03  6.19e-03  4.86e-03
## 916   1.36e-02  4.54e-02 -4.06e-02  8.62e-02 -5.34e-03  6.96e-03  1.27e-02
## 917  -4.28e-03  3.99e-03  2.27e-04  1.27e-02 -4.19e-03 -8.29e-03  5.42e-03
## 918   1.10e-02  6.16e-03  1.19e-02  7.35e-02 -2.09e-03  2.48e-02  1.30e-02
## 919  -2.40e-03 -7.50e-03  6.77e-03  4.56e-02  4.93e-03  3.98e-03  4.19e-03
## 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
## 922  -5.20e-03  8.37e-04  3.88e-03  2.40e-03  2.42e-04 -3.42e-03 -1.28e-03
## 923   4.05e-03  1.48e-02 -5.12e-02  7.68e-02 -3.78e-02 -3.05e-02  5.98e-03
## 924  -8.97e-03  9.01e-03  1.91e-04  4.59e-02  6.49e-03  3.29e-03  1.11e-02
## 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
## 929  -1.56e-02  5.12e-03  1.48e-02  2.99e-02  6.58e-04 -5.92e-03 -6.08e-03
## 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
## 933  -1.06e-02 -3.15e-04  2.18e-02  2.16e-02  1.24e-02  1.50e-02 -4.37e-04
## 934   1.19e-02 -2.24e-02  2.94e-02  6.87e-02 -2.55e-02  1.58e-03  1.54e-02
## 935  -3.18e-02  2.88e-02  3.18e-02  6.19e-02 -1.40e-03 -7.02e-04  1.19e-02
## 936   8.96e-03  1.78e-02 -2.45e-02  7.09e-02 -7.12e-03  1.79e-02  1.45e-02
## 937  -4.69e-02 -1.70e-03  5.60e-02  8.10e-02 -8.86e-03  1.55e-04  8.18e-03
## 938  -2.45e-02  8.89e-03  1.42e-02  3.93e-02 -2.51e-02  3.28e-03  1.50e-02
## 939  -1.62e-02  5.09e-03 -1.32e-02 -1.21e-02  2.07e-02  1.42e-02  2.07e-03
## 940  -1.18e-02  8.73e-03  1.45e-02  4.02e-02 -6.44e-03 -7.41e-03  1.32e-02
## 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
## 944  -1.68e-03  5.99e-04  1.33e-03  1.80e-03  2.09e-04 -1.58e-03 -1.71e-04
## 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
## 947   -2.03e-02  2.90e-02 -6.37e-03  2.48e-02  1.18e-02 -1.23e-02 -9.11e-03
## 948    6.64e-04  4.78e-05 -5.01e-04 -1.68e-04 -5.79e-04  6.02e-04 -3.00e-04
## 949    2.73e-04 -2.32e-04 -1.38e-04 -3.63e-04  4.03e-04 -6.71e-05  1.52e-04
## 950    3.98e-03  3.28e-03 -3.42e-03 -9.16e-04  4.14e-03 -5.17e-03 -1.59e-03
## 951   -6.24e-05  6.49e-05 -1.27e-04  3.23e-04  4.66e-05  3.69e-04 -6.73e-05
## 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
## 954    2.24e-03 -5.88e-05  5.05e-03 -8.34e-03  6.18e-03 -6.48e-03 -1.62e-03
## 955   -6.47e-04  1.46e-02  8.53e-03  1.73e-02 -2.54e-02 -2.70e-02 -6.92e-03
## 956    2.43e-03 -5.08e-03 -1.71e-03 -1.12e-03 -1.46e-03 -1.80e-03  1.49e-03
## 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
## 959    3.51e-03 -8.19e-03 -3.30e-03  1.26e-02 -3.20e-03 -1.88e-02 -1.03e-02
## 960   -2.88e-03 -2.13e-03  2.24e-03  2.19e-03 -1.96e-03 -7.25e-03 -3.29e-03
## 961    9.39e-03 -7.64e-03 -7.58e-03 -2.59e-03 -2.71e-03  4.14e-03  9.47e-03
## 962   -1.07e-03 -2.19e-03 -1.09e-03 -2.91e-04 -7.38e-04 -1.19e-03 -4.06e-04
## 963    5.76e-03 -3.13e-03 -6.30e-03  2.90e-03  5.59e-05  2.38e-03 -1.86e-03
## 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
## 966    2.75e-03  1.29e-04 -1.12e-02 -2.60e-02  7.44e-03  6.31e-02  2.40e-02
## 967   -1.98e-03 -2.37e-02  1.96e-03  6.64e-04  8.61e-03  1.09e-02  2.29e-03
## 968   -9.23e-03 -1.46e-02  1.49e-02  1.04e-02  4.03e-03 -2.16e-02 -4.91e-03
## 969    1.63e-04 -1.74e-03  3.43e-04  4.53e-04 -4.55e-04 -1.26e-03 -5.63e-04
## 970    1.06e-02  1.55e-02 -2.56e-02 -1.79e-05  8.95e-03 -3.07e-02 -1.89e-02
## 971    1.34e-03 -5.93e-03  3.42e-03  5.27e-03 -7.43e-04  2.77e-03  1.73e-04
## 972    1.50e-02  1.92e-02 -3.23e-02  6.98e-02 -1.45e-02 -1.14e-01 -4.37e-02
## 973   -1.22e-04  1.10e-05 -1.85e-04 -1.98e-04  4.69e-04  3.39e-04  7.70e-05
## 974   -1.37e-03 -4.50e-03  6.34e-03  7.53e-04 -1.15e-03  9.05e-03  9.48e-04
## 975    5.09e-02 -1.79e-02 -6.79e-02  2.02e-02  1.16e-02 -1.36e-04 -1.75e-02
## 976    2.10e-03 -6.21e-03 -2.02e-03  3.26e-03 -4.06e-03  1.73e-03  3.55e-04
## 977   -9.69e-04 -8.64e-03 -1.32e-02 -1.13e-02  6.37e-03 -1.81e-02 -5.19e-03
## 978   -2.02e-03  4.62e-04  9.43e-04 -1.59e-03 -3.26e-04  2.44e-03  1.53e-03
## 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
## 982   -1.41e-05  5.57e-04 -3.31e-06 -4.90e-04  3.10e-04  5.10e-04 -4.36e-03
## 983    1.12e-03 -2.45e-02 -1.03e-02 -7.59e-04  4.47e-03 -2.10e-02 -9.06e-03
## 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
## 986    2.73e-03  1.08e-03 -5.01e-03 -6.30e-03  1.97e-03  4.05e-03  1.30e-03
## 987    9.91e-03  5.67e-03 -1.98e-02 -7.11e-03  1.97e-03 -8.40e-03 -4.39e-03
## 988    3.86e-02 -1.66e-02 -1.89e-02  5.23e-03 -1.29e-02  1.83e-02 -1.63e-03
## 989    4.43e-03  1.96e-02 -1.40e-02  5.24e-03 -1.05e-02 -1.76e-02 -7.55e-03
## 990    1.31e-02 -9.05e-03 -3.80e-03 -1.78e-02  2.04e-03  2.92e-02  6.37e-03
## 991    1.43e-02 -4.66e-02 -1.93e-02  1.85e-02  1.18e-02  2.37e-02  1.02e-03
## 992   -4.53e-03  3.75e-03  7.53e-03  3.14e-03 -4.20e-03  1.17e-03  8.03e-04
## 993    3.79e-02 -1.19e-02 -5.23e-02 -3.28e-02  4.41e-02  7.66e-02  1.78e-02
## 994    4.75e-03 -4.18e-03  4.55e-04  1.01e-02 -5.05e-03 -1.48e-02 -5.34e-03
## 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
## 998   -3.46e-04  4.73e-04  2.39e-04  1.91e-03  1.85e-03  1.46e-03  1.17e-04
## 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
## 1001  2.22e-02 -8.74e-04 -4.29e-02  1.98e-02  1.37e-02 -6.28e-03 -1.04e-02
## 1002  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
## 1006  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
## 1037  6.25e-03 -5.81e-03  5.40e-03  1.81e-03 -2.80e-02 -1.40e-02 -1.84e-03
## 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
## 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  1.63e-02  2.71e-02 -1.42e-02 -2.57e-03 -2.05e-03  5.32e-03
## 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
## 1067  1.61e-03  2.20e-03  3.89e-03 -3.55e-03 -5.05e-03  5.73e-03  1.92e-03
## 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
## 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
```

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## 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
## 1121  6.06e-03 -5.74e-03  3.37e-03 -1.06e-02 -6.51e-03 -1.35e-03  1.98e-03
## 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
## 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
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## 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
## 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
```

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## 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
## 1252  5.77e-03   1.85e-03  -7.96e-03  -4.74e-03   1.98e-02  -1.26e-02  -6.43e-03
## 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
## 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
## 1261  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
## 1291  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
## 1295  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
## 1302  5.57e-03  7.63e-04 -5.40e-03 -1.09e-02 -1.51e-02  8.45e-03 -2.64e-03
## 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
## 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
## 1319  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
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## 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
## 1327  1.59e-03 -1.33e-03  8.49e-03  7.14e-03  9.16e-04 -1.89e-03  5.49e-03
## 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
## 1337  4.60e-03 -8.06e-04 -2.08e-03  1.14e-02  4.59e-03  5.29e-03  4.49e-03
## 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
## 1355  7.42e-03 -2.31e-02 -3.55e-02 -2.79e-02  5.93e-02  2.04e-02  4.73e-03
## 1356  2.87e-02 -2.12e-02 -1.36e-02 -1.33e-02  2.87e-02  3.17e-02  3.11e-02
## 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
## 1361  9.10e-03  5.35e-04  6.14e-03  5.82e-04 -7.47e-03  5.69e-03  8.24e-03
## 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
## 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
## 1377  1.35e-02 -8.84e-03 -1.37e-02 -1.18e-03 -3.20e-03 -7.76e-03 -3.03e-03
```

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## 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
## 1399 -2.88e-02  2.66e-02  2.70e-02  6.57e-03  1.85e-03 -8.28e-03  9.65e-03
## 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
## 1405  6.53e-03  4.55e-02  7.29e-03  1.20e-02  4.39e-03 -2.51e-03  3.69e-03
## 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
## 1408  1.87e-02 -2.27e-03 -4.53e-03 -1.32e-02 -2.27e-02  8.80e-03 -6.48e-03
## 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
## 1414  3.94e-03 -3.47e-03  9.28e-03  2.20e-03 -8.49e-03 -2.82e-03 -6.30e-03
## 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
## 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
## 1421  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
## 1423  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
## 1427  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
```

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## 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
## 1442  7.56e-03 -8.03e-03  3.90e-02  8.24e-03 -1.07e-02  5.53e-03  1.31e-02
## 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
## 1446  1.63e-04  5.83e-05 -4.69e-04 -2.23e-04  2.42e-06  3.90e-05 -2.96e-04
## 1447  3.01e-03  9.03e-03 -1.89e-03  4.07e-03 -4.36e-03 -4.54e-04 -2.04e-04
## 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
## 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
```

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## 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
## 1500  5.58e-03 -4.99e-03 -1.56e-03 -1.28e-02 -9.89e-04 -4.62e-03 -1.75e-03
## 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
## 1516  2.05e-02  2.81e-02 -1.06e-02 -8.08e-03 -2.58e-02 -1.45e-02 -3.09e-03
## 1517  2.06e-02  1.40e-02 -1.14e-02 -1.78e-02 -6.19e-03 -1.71e-03 -2.18e-02
## 1518  2.40e-02  2.74e-02 -1.83e-02 -7.64e-03 -3.90e-02  1.81e-02  7.26e-03
## 1519  7.45e-02 -1.15e-03 -3.51e-03  3.28e-02 -4.02e-02 -3.03e-02 -1.16e-02
## 1520  1.03e-02  3.78e-03 -5.24e-03 -7.38e-03 -4.81e-03  4.26e-03 -2.81e-03
## 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
## 1523  2.73e-02 -1.75e-02  1.40e-02  1.45e-02 -1.45e-02 -3.42e-02 -8.25e-03
## 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
## 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
## 1529  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
## 1533  1.39e-02  2.32e-03 -1.11e-03 -2.52e-04 -1.54e-02 -2.85e-02 -5.55e-03
## 1534  1.62e-02  1.65e-02 -6.28e-03  5.36e-04 -3.21e-02 -1.62e-02 -3.32e-03
## 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
## 1538  2.69e-02  2.16e-02 -1.60e-02 -6.35e-03 -2.42e-02 -2.91e-02 -2.51e-03
## 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
## 1541   2.93e-04 -1.58e-03   5.21e-04   1.29e-03 -1.43e-03 -4.97e-03 -1.62e-03
## 1542   1.28e-02 -2.13e-02   3.21e-02 -7.28e-04 -9.21e-03 -3.73e-02 -8.58e-03
## 1543   1.09e-02 -2.27e-03 -4.66e-03 -7.93e-03 -1.94e-02 -2.40e-02 -3.20e-03
## 1544   3.64e-04 -2.78e-04   1.53e-03 -1.54e-03 -1.00e-03   9.01e-04   8.19e-04
## 1545   4.14e-03 -2.88e-03   1.21e-02   3.25e-03 -1.86e-02 -1.05e-02 -4.36e-04
## 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
## 1548   1.02e-01 -5.01e-02 -7.10e-02   1.58e-02   5.99e-03   9.75e-03   8.61e-03
## 1549   2.40e-04 -3.11e-04 -2.94e-05 -4.79e-05 -4.32e-04 -7.17e-05 -8.14e-05
## 1550   2.08e-03   1.46e-03 -4.84e-03 -1.75e-03 -2.13e-03 -1.36e-02 -5.40e-03
## 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
## 1553   3.80e-03   1.16e-03 -1.92e-03 -1.03e-03 -4.07e-03 -1.88e-03 -3.67e-03
## 1554   8.97e-04   6.44e-03 -3.62e-03 -3.26e-03 -1.71e-02 -4.22e-03 -6.23e-03
## 1555   7.97e-03   6.03e-03 -1.61e-02   8.79e-04   1.19e-02   7.71e-04   1.72e-03
## 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
## 1561   8.67e-04   8.05e-03   1.04e-03   8.66e-03   7.24e-04 -1.13e-03   2.37e-03
## 1562   1.66e-02   4.79e-03 -1.72e-02 -1.72e-02 -7.99e-03 -7.36e-03 -5.68e-03
## 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
## 1565   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
## 1577   1.89e-03   5.71e-03 -4.30e-04 -1.67e-04 -6.68e-03 -7.80e-05   1.56e-03
## 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
## 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
## 1585   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
```

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## 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
## 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
## 1673  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
## 1684  3.71e-02  8.13e-03 -2.60e-03  2.35e-04 -4.76e-02 -6.23e-02 -4.91e-03
## 1685  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
## 1689  3.80e-04 -5.00e-04 -1.00e-03  4.84e-05  1.80e-03  5.90e-04  3.86e-04
## 1690  1.79e-02  2.58e-03 -3.05e-03 -1.83e-03 -3.66e-03 -4.75e-03 -7.94e-03
## 1691  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
## 1694  4.15e-03  2.72e-03 -4.49e-04  3.21e-03 -3.64e-03 -4.67e-03 -2.80e-02
## 1695  2.55e-02  2.08e-02 -3.00e-02 -7.37e-02  2.08e-03  8.40e-03 -4.89e-03
## 1696  4.90e-03 -1.89e-03 -8.87e-04  2.31e-03 -7.52e-03 -1.82e-03  1.99e-03
## 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
## 1704   3.74e-04 -8.24e-04  3.28e-04 -9.10e-06  5.10e-04 -7.12e-04 -2.45e-04
## 1705   3.94e-04 -6.97e-04  8.37e-04 -3.07e-04 -7.18e-04  3.49e-04 -6.33e-04
## 1706   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
## 1708   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
## 1727   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
## 1736   1.02e-03 -1.70e-03  2.95e-04 -7.87e-04 -6.05e-04 -2.50e-03  7.04e-04
## 1737   8.50e-03 -1.20e-02 -3.24e-03  3.04e-03 -1.44e-03 -6.79e-03  2.42e-03
## 1738   4.60e-03  4.63e-03  1.81e-03  3.67e-03 -9.60e-03 -1.66e-02  1.85e-03
## 1739   5.14e-04 -6.20e-04 -5.24e-05 -1.36e-04  1.22e-04 -2.64e-04  9.94e-05
## 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
## 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
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## 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
## 1781  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
## 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
## 1812  1.87e-02  1.06e-02  5.89e-03  1.27e-02 -2.23e-02  7.67e-03  9.30e-03
## 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
## 1827  5.07e-02 -3.14e-02  3.27e-02  1.51e-02 -5.53e-02  1.21e-02 -5.67e-03
## 1828  1.88e-03 -1.82e-03  2.97e-04 -5.91e-04  6.43e-04  2.87e-03  1.34e-04
## 1829  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
## 1839  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
## 1853  2.55e-02 -4.35e-02  6.86e-04  6.31e-04 -2.81e-02 -1.29e-02 -1.34e-02
## 1854  1.49e-03  7.46e-04 -4.16e-03 -2.62e-03 -2.45e-04 -3.39e-03 -2.88e-03
## 1855 -8.34e-04  1.86e-03 -6.10e-03  5.37e-03  2.32e-03 -2.72e-03 -1.81e-04
## 1856  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
## 1862  3.31e-03  7.24e-04  4.41e-04  1.47e-04 -9.55e-04 -5.94e-03 -3.09e-03
## 1863  3.56e-04  2.25e-02 -4.80e-03  2.39e-03  9.71e-03  1.71e-02  7.20e-03
```

```
## 1864  1.39e-03  1.77e-03 -4.81e-03 -7.94e-05  2.31e-03 -1.64e-03 -1.16e-03
## 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
## 1867  8.24e-05  6.70e-04  7.52e-04  4.30e-04 -4.37e-04  1.46e-04  3.99e-04
## 1868 -1.04e-01  2.77e-02 -5.50e-02  9.49e-02  3.14e-02 -1.04e-01 -4.69e-02
## 1869  1.67e-04  2.86e-04  8.97e-04  6.74e-04 -1.12e-04  3.42e-04  2.69e-04
## 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
## 1881  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
## 1884  3.00e-02 -1.42e-02 -1.37e-02 -3.09e-02  6.17e-02  3.96e-02 -1.42e-03
## 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
## 1891  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
## 1894  4.01e-06 -2.26e-05  1.24e-05 -1.36e-06 -7.85e-06  9.56e-06 -9.66e-07
## 1895  3.29e-03  2.48e-03  2.17e-04  4.49e-04 -1.53e-03 -9.03e-04 -3.61e-04
## 1896  7.84e-03 -1.02e-02  1.55e-02 -1.37e-02 -1.27e-02  7.67e-03 -9.16e-04
## 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
## 1899  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
## 1901  4.10e-02 -1.35e-02 -3.89e-02  2.18e-02  6.96e-03  5.07e-03 -5.27e-03
## 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
```

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## 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
## 1928  1.05e-02  3.47e-03 -2.40e-03 -4.08e-03  9.32e-03  5.50e-04 -2.28e-03
## 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
## 1943  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
## 1949  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
## 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
## 1987  9.81e-04  5.80e-04 -1.36e-03  1.37e-03  8.68e-04 -2.45e-03 -5.53e-04
## 1988  5.48e-05 -3.37e-05  6.22e-05 -4.78e-05 -3.73e-05  9.03e-05  1.68e-05
## 1989  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
## 1993  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
## 1997  1.60e-02 -1.39e-03 -1.21e-02 -5.18e-03 -3.80e-03 -2.68e-03 -6.74e-03
## 1998  2.64e-03  1.34e-03  2.68e-03 -3.74e-03 -3.52e-03  3.75e-03  6.39e-04
## 1999  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
## 2001  3.00e-02  1.04e-02  1.33e-02  2.01e-02 -1.10e-02  2.04e-02  7.99e-03
## 2002  1.72e-04 -1.70e-04  1.77e-04 -4.11e-04  3.07e-04  7.43e-04  2.56e-04
## 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
## 2017  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
## 2020  7.66e-03 -2.65e-04 -3.50e-03  6.09e-03  9.39e-03  1.34e-02  6.51e-03
## 2021  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
## 2029  6.92e-03  1.79e-02  1.11e-02 -1.89e-02 -1.57e-02  1.52e-02 -6.35e-03
## 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
## 2035  3.43e-02  1.20e-02 -1.41e-02  1.33e-02 -4.41e-02  1.70e-02  8.08e-03
## 2036  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
## 2047  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
## 2058  1.03e-03 -1.68e-04  1.26e-03  1.31e-03 -2.58e-03 -7.08e-04  1.66e-04
## 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
```

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```
## 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
## 2085  4.82e-03 -8.09e-04 -6.81e-03 -3.13e-03  9.94e-04 -2.30e-03 -9.22e-05
## 2086  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
## 2089  1.73e-02 -1.47e-02 -1.40e-02 -7.20e-03  3.98e-03  6.64e-03 -2.57e-02
## 2090  5.25e-02 -3.43e-02 -3.40e-02 -2.51e-03 -2.37e-03  3.06e-02 -3.11e-02
## 2091  1.09e-03 -1.94e-03 -1.66e-03  2.80e-03 -4.00e-03 -5.60e-03  7.34e-04
## 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
## 2094  5.80e-03  1.49e-03 -8.85e-04 -2.93e-03 -1.02e-02 -6.08e-03  1.02e-03
## 2095  3.06e-03 -8.85e-03  1.08e-03 -8.26e-04  4.14e-03 -9.92e-03 -2.33e-03
## 2096 -6.13e-03 -1.36e-02  1.05e-02  9.19e-03  1.42e-02 -1.59e-02 -2.52e-04
## 2097  2.36e-03  6.16e-04 -5.84e-04  7.21e-04 -1.88e-03 -7.14e-03 -2.79e-03
## 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
## 2100  1.34e-02 -1.45e-02  7.34e-03  2.09e-03 -8.26e-03 -6.18e-03  5.19e-03
## 2101  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
## 2105  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
## 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
## 2125  7.46e-04 -1.48e-03 -8.53e-04 -2.88e-03 -6.12e-04  3.56e-03  1.30e-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
## 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
```

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## 2188 -1.60e-04 -1.16e-03  2.03e-03 -1.54e-03  1.03e-03  1.14e-02  1.22e-03
## 2189  1.80e-04 -2.04e-03 -1.79e-03 -2.22e-03  4.54e-04 -1.03e-03  1.90e-03
## 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
## 2209  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
## 2225  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
## 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
## 2256  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
## 2260  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
## 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
## 2287  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
## 2289  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
## 2291  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
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## 2296   3.02e-02 -1.65e-02 -5.02e-02 -2.81e-02  4.05e-02  4.28e-02 -9.21e-04
## 2297   2.77e-02 -1.27e-02  3.68e-03 -5.14e-02 -5.49e-02 -5.68e-03 -9.21e-03
## 2298   3.30e-03 -9.15e-03 -2.35e-03 -9.10e-04  1.88e-03  9.37e-03  1.57e-03
## 2299   2.06e-03 -1.37e-02  1.96e-02 -5.30e-03  2.02e-03  2.18e-02  4.46e-03
## 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
## 2306   3.35e-02  3.80e-02 -6.25e-02  1.27e-02  3.51e-02  1.65e-02 -1.10e-02
## 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
## 2321   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
## 2325   2.79e-03 -3.61e-03 -2.71e-03 -7.82e-03  6.36e-03 -4.13e-03 -5.79e-03
## 2326   1.57e-02  8.54e-03 -1.69e-02  4.37e-02  9.55e-03 -7.69e-03  7.15e-03
## 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
## 2332   3.27e-03 -1.47e-03 -5.59e-03 -1.80e-02  2.04e-03 -1.08e-03 -3.78e-03
## 2333   1.07e-02 -7.65e-03 -1.85e-02 -2.76e-02  1.96e-02  1.06e-02 -2.99e-03
## 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
## 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
```

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## 2350   1.79e-02   4.12e-02  -6.14e-03   2.97e-02  -6.72e-03  -8.26e-03  -7.52e-04
## 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
## 2359   2.29e-03  -1.48e-04   3.87e-04   4.04e-03  -9.91e-04  -4.72e-03   1.72e-03
## 2360   9.89e-03   2.75e-02  -2.75e-02  -2.86e-04  -3.75e-04  -2.67e-03  -5.99e-04
## 2361   5.98e-03  -3.60e-03  -6.83e-03  -9.32e-04   1.89e-03   8.09e-04   2.52e-03
## 2362   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
## 2364   8.16e-03  -4.01e-03   1.14e-03  -1.04e-03  -4.32e-03  -4.38e-03   9.52e-04
## 2365   3.40e-02  -1.53e-02  -2.47e-02  -2.68e-02   2.35e-03   2.17e-02   9.97e-03
## 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
## 2369   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
## 2371   9.35e-04  -2.45e-03   1.21e-04  -1.27e-04   3.56e-05  -7.65e-04   2.29e-04
## 2372   1.37e-03  -7.16e-04   5.85e-04   1.47e-03   2.63e-04   9.43e-04   1.89e-03
## 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
## 2375   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
## 2381   3.86e-03   1.13e-03   1.02e-04   6.33e-04  -5.98e-03  -4.68e-03   3.37e-04
## 2382   3.67e-04   4.91e-03  -4.09e-03   9.22e-04   4.75e-03   2.49e-03  -2.85e-03
## 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
## 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
## 2407  9.28e-03 -9.35e-03  9.92e-03 -4.74e-03 -1.52e-02  4.90e-03  9.98e-04
## 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
## 2436  2.33e-02  3.43e-02  7.49e-03  1.77e-02  7.25e-03 -8.02e-02 -4.40e-02
## 2437  9.47e-03 -1.77e-02  5.06e-04 -7.99e-03 -7.24e-03  4.54e-03 -1.34e-03
## 2438  1.94e-02  1.72e-02 -8.21e-03 -2.12e-02  1.72e-03  1.74e-02  3.51e-03
## 2439  5.77e-03  2.73e-02 -2.08e-02 -1.02e-02  4.85e-02 -1.92e-02 -1.16e-02
## 2440  1.02e-02  7.32e-02 -5.82e-02 -1.71e-02  4.12e-02  5.50e-02  1.46e-02
## 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
## 2448  5.24e-03  4.60e-03 -2.38e-03 -1.07e-03 -7.27e-03 -1.08e-02 -3.50e-03
## 2449  5.21e-03 -2.06e-03 -1.86e-02 -1.88e-02  8.58e-03  1.51e-02  2.34e-04
## 2450  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
## 2452  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
## 2456  4.42e-06 -2.54e-06 -9.51e-06  3.53e-06 -9.77e-06 -8.48e-08 -1.19e-05
## 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
## 2459   1.52e-02   7.34e-04  -8.94e-03  -1.64e-02   1.62e-03   9.73e-03   1.95e-04
## 2460   4.36e-04  -2.38e-06  -1.73e-04  -3.80e-04   2.53e-03   4.56e-04   8.05e-04
## 2461   3.88e-03   2.94e-03   1.93e-02   1.72e-02  -8.80e-03   2.80e-03   7.78e-03
## 2462  -3.70e-04   1.28e-03  -1.03e-03   5.77e-03   2.00e-03  -1.26e-03   2.21e-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
## 2466   8.72e-04  -1.35e-03  -3.81e-03   2.31e-03   9.00e-04   1.37e-03  -3.47e-03
## 2467   8.81e-05   5.36e-04   3.53e-03   2.79e-03  -2.52e-04   9.82e-04  -2.25e-03
## 2468   4.70e-03   2.36e-03   5.38e-03   1.40e-02   2.96e-03   1.44e-03   6.28e-03
## 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
## 2471   5.04e-03   1.56e-04  -1.16e-04   1.70e-03   8.85e-03  -2.28e-03   3.44e-03
## 2472   1.66e-03   1.66e-03   1.20e-03  -1.58e-03   3.47e-03  -4.06e-03  -7.62e-04
## 2473   8.02e-04   1.66e-03   4.97e-03   2.11e-03  -4.39e-04  -7.04e-04   2.93e-03
## 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
## 2478   6.80e-04  -2.18e-03  -8.49e-03  -7.34e-03   6.00e-03   2.98e-03  -2.54e-03
## 2479  -4.12e-03  -3.28e-05   3.54e-03   5.84e-03   8.64e-04  -2.12e-03  -1.72e-03
## 2480   1.40e-02   1.64e-03  -5.87e-03  -1.55e-02   1.94e-02   4.81e-03  -5.66e-03
## 2481   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
## 2483   6.83e-05  -1.25e-05  -1.90e-04   4.06e-04  -4.49e-04  -3.67e-06  -1.52e-04
## 2484   4.17e-03   1.47e-03  -1.71e-03  -5.14e-03  -1.34e-03  -1.27e-03  -1.42e-04
## 2485   2.41e-02   2.96e-03  -6.86e-03  -2.28e-02   1.54e-02   7.87e-03  -2.37e-04
## 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
## 2489   5.06e-03  -3.93e-04   9.65e-04  -1.25e-02   1.71e-02   3.86e-03   7.92e-03
## 2490   3.20e-04  -4.16e-04  -4.96e-04  -1.73e-03  -6.52e-05   9.31e-04   2.51e-04
## 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
## 2495   4.32e-03   4.13e-05   7.72e-03   4.53e-03   4.31e-03  -3.53e-04   4.22e-03
## 2496   2.70e-03  -4.70e-03  -1.19e-02  -9.49e-03   8.74e-03   5.88e-03  -6.27e-03
## 2497   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
## 2501   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
## 2503   4.26e-03   3.46e-03   1.03e-03   1.30e-02   9.45e-03  -1.20e-04  -2.31e-02
## 2504   8.12e-03   1.20e-04  -3.73e-03  -8.67e-03   4.30e-03   4.46e-03   2.46e-03
## 2505   7.43e-03  -4.01e-03  -9.31e-03  -9.48e-03  -5.52e-03   5.62e-03  -4.93e-03
## 2506   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
```

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## 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
## 2522  1.61e-02  4.65e-03 -4.63e-04  6.97e-03  3.34e-03  9.30e-04  7.89e-03
## 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
## 2527  1.75e-03  5.95e-04  3.16e-03  1.59e-04  1.58e-03  1.44e-03  2.38e-03
## 2528 -5.95e-04 -1.90e-03  2.86e-03  1.54e-04 -6.17e-03  7.45e-03  4.62e-05
## 2529  6.78e-03  2.32e-03  1.51e-03  8.97e-03  2.13e-03  1.35e-04  2.17e-03
## 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
## 2535  6.97e-03 -8.22e-04 -1.87e-03  2.09e-03  1.41e-02  5.71e-03  5.09e-03
## 2536  1.83e-04  4.51e-04  9.24e-04  8.40e-04 -1.83e-03 -2.34e-03 -8.13e-04
## 2537  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
## 2539  6.92e-03 -6.80e-03 -1.02e-02  1.95e-03  4.99e-03 -1.07e-02 -6.90e-03
## 2540  1.05e-02 -3.55e-02 -2.38e-02 -3.93e-03  4.52e-02 -1.19e-02 -8.13e-03
## 2541  3.48e-02  4.69e-03 -2.85e-03 -1.12e-03  2.60e-03 -4.45e-02 -2.76e-02
## 2542  1.50e-02  2.71e-02 -1.14e-02  1.46e-03 -8.45e-03 -5.04e-03 -6.85e-03
## 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
## 2549  4.04e-02 -3.30e-02 -2.34e-02 -1.85e-02  8.88e-02 -9.52e-02 -6.65e-02
## 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
## 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
## 2560  3.12e-02 -2.70e-02 -2.80e-02  1.38e-02 -1.72e-02 -4.40e-02 -1.68e-02
## 2561  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
```

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## 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
## 2575  1.01e-04  1.12e-02  6.66e-03 -9.54e-03  2.02e-03  1.07e-02 -2.30e-03
## 2576  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  3.22e-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
## 2603  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
## 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
```

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## 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
## 2622  1.29e-03 -5.88e-03  3.75e-04  9.85e-03  3.59e-03  1.32e-02  6.33e-03
## 2623  5.58e-04 -1.61e-04 -7.18e-04 -4.82e-04  7.14e-04 -1.38e-03 -8.86e-04
## 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
## 2651  1.62e-03 -6.36e-04 -1.85e-03 -7.43e-03 -5.13e-03 -2.46e-03 -1.87e-03
## 2652  1.29e-02 -4.80e-03  9.06e-03 -1.57e-02 -1.27e-02  4.32e-02 -3.78e-03
## 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
## 2656  3.81e-03  7.36e-03 -1.43e-02  3.12e-03  8.36e-03  6.63e-04 -4.36e-03
## 2657  6.01e-02  2.11e-02 -2.04e-02 -3.16e-03 -4.65e-02  1.83e-03 -1.72e-02
## 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
## 2663  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
## 2666  9.76e-04 -2.99e-04 -4.49e-03 -6.70e-05  1.04e-03  5.86e-03  1.01e-03
## 2667  1.99e-03  3.59e-03 -8.54e-03 -5.95e-04  6.84e-03  5.17e-03  1.73e-03
## 2668  3.06e-02 -6.25e-04  2.01e-03 -1.00e-02  1.74e-02  2.93e-02  1.94e-02
## 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
## 2687  2.51e-03 -3.09e-03  1.25e-03  3.16e-03 -4.27e-03  1.02e-02  4.27e-03
## 2688  1.43e-03 -4.61e-03  2.70e-05 -2.75e-03  8.90e-03  2.90e-02  1.07e-02
## 2689  6.88e-03 -1.84e-02 -2.69e-03  1.36e-02  1.32e-02 -5.17e-02 -3.21e-02
## 2690 -2.28e-03  2.14e-03  2.58e-03  1.21e-03 -1.52e-03  3.70e-03  1.03e-03
## 2691  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
## 2694  3.28e-03  2.78e-03  2.84e-04 -3.66e-03 -5.45e-04 -1.60e-02 -2.90e-03
## 2695  2.24e-03  1.54e-02  3.59e-02  9.74e-03 -7.08e-02  1.07e-02  9.98e-03
## 2696  2.12e-02  2.05e-03 -4.71e-03 -9.30e-03 -3.15e-02  9.64e-02  3.16e-02
## 2697  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
## 2699  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
## 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
## 2719  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
## 2726  8.76e-02  4.15e-02 -6.54e-02 -7.00e-02  4.24e-02 -1.53e-01 -4.54e-02
## 2727  1.82e-01  6.39e-02 -2.07e-01 -1.66e-02 -1.52e-02 -1.34e-01  2.66e-02
```

```
## 2728  3.34e-03  2.97e-03 -4.43e-03  1.28e-03 -2.58e-03 -3.74e-03 -1.50e-03
## 2729  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
## 2749  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
## 2753  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
## 2769  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
## 2771  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
## 2777  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
```

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## 2782  2.23e-02  1.46e-02 -2.10e-02  1.09e-03  4.03e-02 -2.45e-03 -4.51e-03
## 2783  4.44e-04 -4.23e-03  4.31e-03 -5.83e-03 -1.49e-03  4.76e-03  4.32e-04
## 2784  6.06e-03 -3.45e-03 -5.07e-03 -5.69e-03 -3.43e-03  3.12e-03 -3.21e-03
## 2785  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
## 2788  2.03e-02 -1.26e-02 -2.22e-02 -2.99e-02  5.41e-02  6.39e-03 -7.86e-03
## 2789  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
## 2797  2.13e-02 -2.55e-02 -1.61e-02 -7.71e-03  2.32e-02  2.39e-02  6.22e-03
## 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
## 2802  3.64e-02  1.82e-02 -3.09e-02 -1.39e-02  3.89e-02  9.67e-03  8.83e-03
## 2803  1.67e-02  9.84e-02 -3.12e-02  4.17e-02 -4.82e-02  4.50e-02  8.97e-03
## 2804  2.60e-02  8.01e-04 -2.53e-02 -4.41e-03  3.20e-02  3.95e-03 -2.00e-03
## 2805  1.81e-02 -5.62e-02 -6.48e-03 -2.48e-02  3.54e-02  1.43e-02  5.34e-03
## 2806  2.97e-04 -1.35e-04 -2.05e-04  2.08e-04 -5.29e-05 -1.80e-04 -3.67e-04
## 2807  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
## 2825  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
## 2827  3.71e-03  9.78e-03 -1.83e-02 -6.65e-03  3.28e-02  4.82e-03 -2.23e-03
## 2828  1.35e-03  7.06e-04 -1.55e-03 -2.92e-03  4.79e-03  3.38e-03  2.89e-03
## 2829  3.06e-04 -1.18e-02  1.12e-02  6.34e-03  7.27e-03  1.18e-03  1.08e-03
## 2830  3.98e-04  1.23e-02 -4.92e-03 -1.35e-02  7.37e-03  1.83e-03 -6.07e-03
## 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
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```
## 2836  8.98e-03 -1.05e-02 -2.29e-03  7.08e-04 -4.09e-03 -3.54e-03 -1.12e-03
## 2837  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
## 2848  7.53e-04 -4.48e-04  3.91e-04 -4.64e-04 -1.46e-03  3.75e-04 -8.10e-04
## 2849  5.25e-03 -6.57e-03 -1.98e-03 -1.16e-02 -3.86e-03 -4.28e-03 -3.86e-03
## 2850  5.41e-04 -1.49e-03  4.53e-04  1.91e-03  2.23e-04 -1.03e-03  7.30e-04
## 2851  1.17e-02 -1.13e-02 -5.23e-03  8.98e-03 -2.33e-02 -1.43e-02 -2.95e-03
## 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
## 2863  1.91e-03 -5.07e-04 -9.00e-04 -3.66e-04 -1.56e-04 -5.05e-04 -1.66e-05
## 2864  1.56e-02  9.60e-03 -3.34e-02  3.79e-02  7.03e-03 -3.35e-02 -1.65e-02
## 2865  1.19e-04 -2.50e-04 -2.58e-05 -1.72e-04  8.28e-06  1.16e-04  1.36e-04
## 2866  1.64e-03 -1.81e-03 -1.57e-03 -1.63e-04 -3.58e-04 -6.02e-04 -1.30e-04
## 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
## 2873  1.05e-03  2.08e-04 -1.75e-03 -6.75e-04  8.30e-04 -1.70e-03  4.18e-04
## 2874  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
## 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
## 2883  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
## 2892  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
## 2898  6.01e-03 -7.09e-03 -2.30e-03  2.67e-03 -1.44e-03 -4.91e-03  4.01e-03
## 2899  1.16e-02 -1.02e-02  5.76e-03 -8.65e-04 -7.27e-03  6.73e-03  7.94e-03
## 2900  4.22e-03  5.48e-05 -2.37e-03  3.79e-03  3.88e-03 -4.74e-03 -1.39e-03
## 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
## 2905  1.02e-03 -6.96e-03 -2.29e-04  1.52e-03  4.74e-03 -6.05e-03  5.92e-04
## 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
## 2911  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
## 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
## 2937  1.62e-02  1.84e-03 -2.11e-02 -1.15e-02  3.54e-03  7.05e-03 -4.46e-03
## 2938  4.24e-04 -5.75e-04 -4.68e-05  3.30e-04 -3.42e-04 -3.40e-04  7.16e-05
## 2939  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
## 2941  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
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## 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
## 2949  1.15e-03  4.43e-04 -2.07e-03 -9.97e-04  8.88e-04  8.27e-04 -6.00e-04
## 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
## 2957  1.43e-04 -8.70e-03  9.17e-03  6.26e-05  9.68e-04  5.91e-03  1.11e-02
## 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
## 2961  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
## 2966  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
## 2973  1.39e-03 -3.46e-04 -1.22e-03 -1.54e-03  9.25e-04 -1.82e-04  1.03e-03
## 2974  6.53e-03 -1.25e-02 -3.37e-03 -2.63e-02  2.87e-02  1.26e-02  1.39e-02
## 2975  1.14e-02 -9.19e-03 -5.48e-03  6.56e-04 -3.93e-03 -1.13e-02 -6.10e-04
## 2976  1.94e-03  2.18e-04 -2.72e-03 -2.08e-03 -2.82e-04  7.07e-04 -9.27e-04
## 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
## 2985  6.26e-03  1.29e-02 -2.74e-03  6.21e-03  3.12e-02 -8.95e-04  5.80e-03
## 2986  9.01e-03 -4.90e-03 -4.05e-03 -1.09e-02  7.34e-03 -6.42e-03  2.83e-03
## 2987  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
## 2989  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
## 2991  1.17e-03  1.19e-03  2.51e-03  9.93e-04  3.04e-03  5.76e-05  1.31e-03
## 2992  8.46e-03 -9.44e-03 -3.85e-03  2.80e-03  8.79e-03 -5.15e-03 -4.39e-03
## 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
## 2999  1.01e-04  2.66e-05 -2.12e-04 -7.59e-05  1.50e-04 -1.31e-05 -2.23e-05
## 3000 -1.74e-03  3.49e-05 -4.83e-05  4.90e-03 -3.37e-03 -1.30e-03 -3.54e-03
## 3001  1.17e-03  3.25e-03 -2.61e-03 -3.48e-03 -2.07e-03  1.05e-03  1.48e-04
## 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
## 3004  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
## 3018  3.56e-03  1.20e-03  3.91e-03 -3.55e-03  9.05e-04 -4.36e-03  3.56e-03
## 3019  2.73e-04 -1.65e-03  1.08e-02  3.03e-03 -3.60e-03  1.10e-02 -2.99e-03
## 3020  4.06e-04  2.92e-04  1.35e-04  1.82e-04 -2.99e-04 -1.40e-05 -5.45e-04
## 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
## 3023  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
## 3029  1.88e-03 -2.97e-03 -3.97e-03 -1.54e-02  1.45e-02  3.66e-03  1.86e-03
## 3030  2.52e-04 -1.63e-03 -5.05e-03 -4.22e-03  2.85e-02  1.93e-03  2.15e-03
## 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
## 3035  1.46e-03 -5.99e-04 -7.29e-04 -5.78e-03  4.59e-04  3.44e-03 -5.61e-04
## 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
## 3043  8.48e-03  4.11e-03 -1.60e-03 -4.80e-04  1.22e-02  3.07e-03  1.06e-02
## 3044  1.81e-02 -1.35e-02 -2.20e-02  2.28e-02  2.58e-02 -8.32e-03 -1.19e-02
## 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
## 2       -4.86e-04   1.17e-03  1.57e-03  -1.54e-04 -4.54e-04 -3.80e-03 1.007
## 3        3.43e-03  -2.51e-03  9.53e-03   1.33e-02  6.10e-03  4.19e-02 1.002
```

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```
## 4      -6.37e-05  -5.24e-03   7.61e-03    3.85e-03   6.48e-03   2.77e-02 1.004
## 5       2.84e-03   2.77e-03  -8.72e-04    1.22e-04  -1.08e-03  -1.74e-02 1.006
## 6      -1.06e-02   4.72e-03  -8.16e-03    1.43e-02  -6.87e-03  -5.36e-02 1.003
## 7      -2.11e-02  -7.55e-03  -4.78e-03   -2.83e-03  -1.54e-02  -3.46e-02 1.006
## 8       2.95e-03  -6.43e-03  -5.62e-04   -5.76e-03   9.05e-03   3.08e-02 1.006
## 9      -6.08e-04  -3.69e-03  -6.19e-03   -4.62e-03  -8.64e-03  -1.82e-02 1.007
## 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     -1.70e-02  -1.81e-03  -6.43e-03   -3.64e-03  -3.46e-03  -2.55e-02 1.004
## 13     -4.77e-03  -1.31e-02   1.68e-02    4.48e-03   1.21e-03   4.03e-02 1.002
## 14      2.84e-03   4.10e-04  -3.99e-03    2.56e-03   2.99e-03  -2.35e-02 1.008
## 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
## 17      2.81e-03   2.26e-03  -2.23e-03    8.90e-05   1.84e-03  -1.91e-02 1.005
## 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
## 24     -4.34e-03  -1.24e-02   2.01e-02    1.27e-02  -1.36e-03   4.50e-02 1.000
## 25      9.35e-04   1.51e-02   2.99e-02    3.38e-02   3.60e-02   8.62e-02 0.996
## 26     -2.82e-04  -5.84e-04   3.07e-03    1.86e-03  -4.24e-03   7.53e-03 1.011
## 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
## 30     -6.61e-03  -3.48e-02  -9.98e-03   -2.72e-03   4.21e-02  -9.32e-02 1.008
## 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
## 36     -1.68e-04  -3.74e-02   1.94e-02   -1.45e-04   7.54e-03   4.39e-02 1.011
## 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     -6.42e-03   1.25e-03  -1.63e-02   -2.78e-03  -5.76e-03   3.60e-02 1.003
## 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      1.14e-03  -5.35e-03   2.25e-02    1.45e-02  -9.96e-03   4.38e-02 1.010
## 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
## 50     -3.97e-03  -3.52e-03  -1.22e-03   -2.11e-03   1.45e-02   3.87e-02 1.003
## 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
## 56     -2.17e-03   8.94e-03   3.65e-03    8.08e-03   1.06e-02   2.54e-02 1.004
## 57     -1.15e-04   1.59e-03   1.14e-03   -3.28e-05  -6.93e-04  -3.55e-03 1.007
```

```
## 58      9.52e-03  -1.13e-03 -2.17e-02   -1.40e-02 -1.80e-02 -6.58e-02 0.999
## 59     -2.19e-03   2.34e-02  1.07e-02    3.69e-02  1.54e-02  5.99e-02 0.997
## 60     -5.98e-04  -1.27e-03  1.64e-03    6.64e-04 -8.72e-03  1.11e-02 1.009
## 61      3.69e-03  -7.15e-03 -6.87e-03   -6.15e-03 -6.35e-03 -1.85e-02 1.004
## 62      1.41e-03  -3.83e-03 -3.78e-04   -7.67e-04  2.22e-03 -1.23e-02 1.005
## 63     -3.51e-03  -3.46e-03  2.35e-03    9.69e-04  6.92e-03  1.79e-02 1.003
## 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
## 66      3.16e-04  -6.40e-04  6.35e-03    5.22e-03 -1.02e-02  1.53e-02 1.009
## 67     -1.39e-03  -5.81e-04 -1.11e-02   -2.42e-02  2.45e-02 -5.06e-02 1.008
## 68     -2.64e-04  -1.98e-04  7.63e-05    1.47e-04  2.92e-04  1.22e-03 1.005
## 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  -5.85e-03  1.40e-02    7.11e-03 -7.63e-02  1.48e-01 0.995
## 74      7.45e-06   5.26e-04 -2.48e-03   -8.58e-04 -1.17e-03 -4.18e-03 1.007
## 75      6.41e-06   8.33e-05 -8.37e-05    1.38e-04  2.87e-04  6.19e-04 1.006
## 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
## 78      4.98e-03   7.47e-03  9.51e-03    1.52e-02  1.39e-02  4.17e-02 1.004
## 79     -9.83e-03  -6.47e-02 -2.20e-02   -5.39e-03  4.63e-03  9.16e-02 0.989
## 80      1.47e-04   4.92e-04 -7.56e-04   -6.10e-04 -8.35e-05 -1.42e-03 1.005
## 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
## 84      1.77e-03   2.82e-04 -1.32e-02    1.95e-02  1.74e-02  6.59e-02 1.001
## 85      6.82e-04  -4.18e-03  6.59e-04   -2.64e-03  2.70e-03 -8.80e-03 1.007
## 86      4.67e-03   4.52e-04 -3.91e-03   -2.75e-03  5.30e-03 -2.50e-02 1.002
## 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
## 90      3.94e-04   3.24e-03  1.12e-03   -2.66e-03  5.82e-04 -8.45e-03 1.007
## 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      1.81e-03   3.52e-03  9.24e-04   -9.70e-04  4.15e-04 -8.22e-03 1.006
## 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     2.06e-04   4.22e-04 -5.54e-04   -8.94e-04  4.99e-04 -2.02e-03 1.006
## 101     1.54e-04  -2.25e-03  3.22e-03   -4.16e-04  1.28e-03 -5.58e-03 1.007
## 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
## 104    -2.68e-02   1.37e-02 -1.24e-02    2.20e-02 -1.07e-02  1.16e-01 1.006
## 105     3.63e-03  -3.91e-02  3.32e-02   -1.71e-02  6.48e-04 -1.01e-01 0.993
## 106    -4.02e-03   2.22e-03  8.06e-05   -2.52e-03  6.53e-03  1.20e-02 1.011
## 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
## 110     5.99e-04   1.23e-03 -9.68e-03    7.91e-04 -1.47e-03 -3.82e-02 1.001
## 111    -5.77e-03  -1.41e-03 -8.41e-03    3.04e-03 -5.20e-03  3.36e-02 1.004
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## 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
## 115    7.04e-03  -9.58e-03  -2.83e-03    2.00e-02   1.24e-02  -6.09e-02 0.999
## 116    1.20e-01  -2.31e-01   2.47e-02   -1.76e-01  -1.11e-02   3.62e-01 0.956
## 117   -6.36e-04  -1.21e-03   1.22e-03   -4.21e-03  -8.45e-04   6.63e-03 1.007
## 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
## 121    1.25e-02  -6.93e-03   7.88e-03   -6.25e-03   1.20e-03   3.93e-02 1.006
## 122    5.68e-02  -1.59e-01  -3.95e-02   -5.71e-02   5.38e-02   3.05e-01 0.965
## 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   -3.64e-03   6.17e-03   1.50e-03    5.07e-03  -3.50e-04  -1.31e-02 1.006
## 127   -6.63e-04  -6.87e-04   1.95e-03   -4.40e-04   3.89e-05   3.46e-03 1.006
## 128    1.97e-02  -1.78e-02  -2.17e-03   -6.10e-03   8.04e-03   3.66e-02 1.005
## 129    1.58e-05   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   -1.04e-05  -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    1.77e-03   4.82e-03  -4.07e-04    1.39e-03   4.60e-03  -1.49e-02 1.005
## 135    3.17e-04   8.47e-04   2.19e-03    1.35e-03   1.65e-03  -6.84e-03 1.005
## 136    1.19e-05  -6.43e-04   1.19e-03    4.13e-04   2.65e-03  -7.89e-03 1.006
## 137   -5.53e-04  -7.25e-04  -1.98e-03   -1.43e-03  -5.70e-04   3.78e-03 1.006
## 138    1.46e-03   1.22e-02  -7.50e-03    4.46e-03   2.84e-03  -1.95e-02 1.005
## 139   -1.46e-03   1.31e-03   3.68e-04    8.35e-04  -4.69e-04  -7.83e-03 1.008
## 140   -3.36e-04  -2.22e-03   1.50e-03    1.90e-03   1.04e-03  -1.12e-02 1.016
## 141   -1.64e-03  -2.02e-03  -1.98e-04   -2.24e-03   4.33e-03  -1.91e-02 1.007
## 142    1.11e-03  -3.30e-04   3.37e-05    1.05e-04  -9.51e-05   2.07e-03 1.008
## 143   -2.22e-03  -9.31e-06   1.79e-03    1.63e-05  -3.23e-04  -8.86e-03 1.007
## 144   -6.25e-03   1.84e-03  -1.83e-03   -2.10e-03  -1.54e-03  -8.64e-03 1.008
## 145   -1.20e-02   7.19e-03   4.46e-03    2.04e-03  -2.08e-03  -2.68e-02 1.009
## 146    3.02e-03   5.60e-03  -5.86e-03   -3.49e-04  -6.27e-03   2.90e-02 1.006
## 147    1.00e-02  -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   -3.19e-03  -4.06e-03   5.61e-03    2.72e-03   1.46e-03  -3.48e-02 1.008
## 150   -1.08e-02   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
## 153   -3.30e-03  -2.08e-03   5.59e-03   -1.71e-03   1.78e-03  -2.16e-02 1.005
## 154   -1.41e-02  -1.42e-03   2.93e-03    3.05e-04  -2.46e-03  -1.80e-02 1.008
## 155    2.01e-03  -1.67e-03   7.62e-04    1.46e-03  -1.18e-04   1.01e-02 1.006
## 156   -9.34e-04   7.97e-03  -3.58e-04   -1.14e-03  -3.53e-03   2.78e-02 1.017
## 157    4.05e-04   5.68e-03  -6.78e-03   -1.53e-03  -4.89e-03   1.84e-02 1.007
## 158   -1.11e-02   4.58e-04   2.51e-03    1.45e-03   1.50e-03  -1.60e-02 1.010
## 159    1.35e-03   5.31e-04  -2.93e-03   -7.78e-04  -2.34e-03   9.92e-03 1.006
## 160   -3.22e-02   1.61e-02   1.71e-03   -6.01e-03  -3.63e-03  -3.95e-02 1.009
## 161   -8.62e-05   6.82e-03  -2.50e-02   -1.44e-02  -1.22e-02   3.62e-02 1.020
## 162    1.18e-02  -9.81e-04  -2.67e-04    2.82e-03   3.85e-03   1.56e-02 1.010
## 163   -5.94e-02   8.03e-03  -7.43e-03   -3.29e-02  -5.40e-02  -1.23e-01 1.002
## 164   -5.15e-02   2.68e-02  -4.09e-03   -2.22e-02  -2.07e-02  -8.00e-02 1.005
## 165    3.08e-03  -3.45e-04   1.07e-04    9.86e-04   2.93e-04   3.92e-03 1.013
```

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## 166     2.71e-01  -1.08e-01   5.22e-02     7.17e-02  -1.60e-01   3.73e-01 0.984
## 167    -1.16e-02  -9.39e-03   2.72e-02    -6.85e-03  -3.01e-02  -7.70e-02 1.006
## 168     5.52e-03  -1.01e-02   8.31e-03     2.52e-03  -9.18e-04   1.91e-02 1.006
## 169    -1.60e-03   1.65e-03  -2.42e-04    -1.63e-03  -7.59e-04  -3.65e-03 1.009
## 170    -4.27e-02   3.44e-02  -6.69e-03    -1.78e-02   4.72e-02  -1.09e-01 1.010
## 171    -1.44e-02   2.67e-02  -2.16e-02    -8.95e-03   3.54e-02  -6.16e-02 1.008
## 172     2.22e-03   1.40e-03   7.04e-04    -5.60e-03   1.65e-03   2.44e-02 1.006
## 173    -6.43e-02   1.32e-02   2.39e-02    -1.68e-02  -3.04e-02  -1.10e-01 1.000
## 174     7.24e-04  -1.04e-02  -1.66e-02    -2.46e-02   2.48e-02  -8.47e-02 1.000
## 175    -2.23e-02   1.34e-02  -1.06e-02    -6.03e-03   3.03e-02  -6.61e-02 1.006
## 176     4.98e-02  -3.55e-02   3.99e-02     6.45e-02   4.36e-02  -2.39e-01 0.991
## 177     6.91e-02  -1.73e-03  -2.83e-02    -1.69e-03  -1.86e-02   7.95e-02 1.053
## 178    -9.13e-03   1.15e-03   1.06e-03    -2.86e-03  -4.16e-03  -1.84e-02 1.007
## 179     3.26e-03  -6.98e-03   5.63e-03     2.23e-03  -8.22e-03   1.46e-02 1.011
## 180    -1.54e-02   4.49e-03   1.45e-03    -1.28e-03   8.37e-03  -1.94e-02 1.017
## 181     7.89e-02  -1.18e-03  -3.88e-02     1.11e-02   1.47e-02   1.04e-01 1.014
## 182    -3.09e-02  -5.13e-05   5.74e-03    -8.42e-03   1.97e-03  -4.78e-02 1.005
## 183     2.51e-03  -1.20e-02   1.30e-02     1.58e-02  -2.20e-02  -7.40e-02 1.002
## 184     2.22e-01  -6.09e-02  -3.03e-02     2.42e-02  -5.77e-02   2.47e-01 1.049
## 185    -4.66e-02   5.36e-02   6.11e-03     1.82e-02  -6.34e-05  -8.81e-02 1.001
## 186     1.58e-03  -1.76e-03   5.19e-04    -2.09e-04  -3.00e-03   6.34e-03 1.011
## 187    -2.27e-02   4.15e-02  -1.37e-02    -1.89e-02   3.69e-02  -8.82e-02 1.007
## 188    -5.30e-02   2.16e-02   1.49e-03    -2.03e-03  -8.15e-03  -6.68e-02 1.015
## 189    -4.47e-02  -5.45e-02   2.95e-03     3.19e-03  -9.81e-02  -2.03e-01 0.980
## 190     5.58e-02  -1.45e-02  -3.15e-02    -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
## 192     7.71e-06   1.98e-04   3.21e-05    -4.60e-05   1.88e-05  -3.44e-04 1.007
## 193     2.59e-05  -5.35e-04   8.23e-03    -6.41e-04  -2.49e-03  -1.38e-02 1.006
## 194    -8.20e-02   1.57e-02  -2.54e-03    -2.70e-02   1.60e-02  -9.01e-02 1.053
## 195    -7.73e-04   1.76e-02   7.12e-03    -1.06e-02  -5.69e-03  -4.14e-02 1.003
## 196     3.66e-05   2.45e-02  -5.33e-03     1.97e-03  -7.01e-03  -4.85e-02 0.999
## 197    -5.06e-04   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    -1.12e-04   4.31e-03  -2.57e-03    -6.50e-03  -3.36e-03  -1.45e-02 1.006
## 200    -1.58e-03   6.32e-03  -2.72e-03    -2.63e-03  -5.17e-03  -2.28e-02 1.004
## 201     2.86e-03  -9.09e-04  -4.02e-03     7.28e-04  -2.31e-02   2.74e-02 1.007
## 202     8.93e-03   1.18e-03   5.27e-02     4.60e-02  -2.16e-02  -1.59e-01 1.006
## 203    -3.97e-03   5.31e-02  -1.90e-02     1.55e-02  -1.49e-03   8.95e-02 0.998
## 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
## 207    -4.40e-03   1.92e-02  -1.19e-02    -2.82e-03  -3.92e-03   3.30e-02 1.007
## 208    -9.80e-04  -1.47e-02  -9.06e-04     2.75e-03   6.85e-03   5.36e-02 1.007
## 209    -1.75e-02   2.63e-02  -6.82e-02     6.78e-03  -1.02e-01   2.11e-01 0.983
## 210    -1.20e-02   2.66e-02   5.03e-03     5.17e-03  -1.10e-02   7.75e-02 1.018
## 211    -2.43e-03   1.07e-02   3.45e-03    -8.07e-03  -1.75e-04   2.90e-02 1.004
## 212    -3.33e-03   8.31e-03  -9.40e-03     4.73e-03   2.12e-02   4.62e-02 1.005
## 213     1.05e-03  -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     3.16e-03   8.57e-04   6.90e-03    -8.57e-03  -5.64e-03  -2.78e-02 1.014
## 218    -9.30e-05   6.45e-04  -2.84e-04     2.18e-04  -1.74e-05  -1.12e-03 1.007
## 219    -1.01e-02   5.59e-02   7.47e-03     3.45e-02  -2.09e-02   1.09e-01 0.995
```

```
## 220   -6.53e-03  -1.24e-02 -8.07e-03  -2.59e-02   2.37e-02   6.69e-02 1.004
## 221    1.39e-03   1.75e-02 -4.96e-03   1.71e-02   1.08e-02   5.80e-02 1.008
## 222    3.83e-04  -1.30e-03 -5.19e-03  -6.31e-03  -7.96e-03  -1.62e-02 1.007
## 223    1.42e-03  -4.27e-03 -1.41e-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   -4.40e-03   1.49e-03 -1.79e-02  -4.70e-03  -3.33e-02   5.30e-02 1.008
## 226   -1.54e-03   1.21e-03 -1.08e-03   3.94e-03   4.38e-03   2.34e-02 1.004
## 227   -9.70e-04   3.64e-03  3.50e-03   2.69e-03  -1.02e-03   7.77e-03 1.008
## 228   -1.35e-02   1.06e-02 -2.24e-02   1.66e-02   2.21e-02   6.40e-02 1.007
## 229   -2.57e-03   1.86e-02 -3.60e-03   7.72e-03  -8.07e-04   3.02e-02 1.009
## 230   -4.95e-03   1.63e-02  4.45e-05   3.65e-04  -7.53e-03   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    4.44e-04  -1.85e-03  8.34e-04  -2.21e-03  -1.72e-03  -4.44e-03 1.007
## 234   -1.13e-03  -1.34e-03  1.18e-03   2.41e-03  -1.26e-03   5.85e-03 1.006
## 235   -2.99e-03  -4.62e-03  5.68e-03   3.29e-03   1.63e-03   2.20e-02 1.006
## 236    1.07e-03  -1.70e-03 -8.49e-04  -7.51e-04   4.85e-04  -6.87e-03 1.005
## 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  -3.11e-03  5.17e-04  -1.25e-03  -8.40e-04   1.19e-02 1.004
## 240   -1.20e-02  -1.72e-02  1.75e-02   1.50e-02   2.41e-02   6.54e-02 0.998
## 241   -9.87e-03   1.84e-02 -1.92e-02  -1.86e-03   1.06e-02   5.60e-02 1.005
## 242    1.14e-03   1.38e-02 -3.46e-07   2.96e-03  -3.77e-03   2.36e-02 1.006
## 243    8.27e-03   4.96e-02 -5.32e-03   1.58e-02  -1.63e-02   7.93e-02 1.006
## 244   -4.02e-03   6.06e-03  2.79e-03   2.52e-04   2.86e-03   2.62e-02 1.009
## 245   -9.15e-04  -1.30e-03  1.46e-02   1.52e-02   6.47e-03   2.53e-02 1.016
## 246   -2.10e-02  -6.53e-04  5.08e-03   1.14e-02   2.92e-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   -1.80e-03  -2.48e-03 -5.78e-03  -2.18e-03   1.80e-03   1.39e-02 1.004
## 249   -5.22e-04  -6.73e-04 -5.66e-03  -4.31e-03   1.83e-03   1.23e-02 1.007
## 250   -2.76e-02  -8.93e-03 -1.64e-02   2.59e-02   5.16e-02   1.43e-01 0.981
## 251    2.45e-04   1.65e-04  2.52e-04   3.86e-04  -2.04e-04  -1.13e-03 1.005
## 252   -8.00e-03   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   1.96e-02 1.013
## 254   -2.09e-02  -1.82e-01  3.43e-02   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   -7.75e-03   1.15e-02  2.73e-03   1.10e-02  -4.95e-03   4.03e-02 1.005
## 258    2.14e-03   5.52e-02 -3.66e-02  -2.00e-03   9.45e-03  -7.40e-02 1.001
## 259   -8.64e-04   6.53e-03  1.57e-03  -1.28e-04   1.05e-02  -1.76e-02 1.010
## 260    2.27e-05   2.02e-05  5.54e-04   1.63e-05   6.63e-04  -2.33e-03 1.011
## 261   -1.43e-02  -4.98e-02  1.36e-02   9.60e-03   2.41e-02   9.54e-02 1.005
## 262   -6.60e-03   3.43e-02  1.48e-02   1.41e-02   9.93e-04  -6.18e-02 1.008
## 263   -5.23e-03  -6.51e-03 -6.04e-03  -1.00e-03   1.21e-03   3.00e-02 1.008
## 264    1.08e-02   7.77e-02  8.18e-02   4.12e-02  -7.04e-02  -3.30e-01 0.980
## 265    2.11e-02  -9.66e-02  6.85e-02   2.14e-02   1.46e-02   1.40e-01 1.003
## 266   -2.14e-03  -2.64e-03 -3.40e-03   1.48e-03   3.91e-03   1.33e-02 1.009
## 267   -4.74e-03   5.12e-03 -4.44e-03  -1.23e-02  -5.01e-03   3.18e-02 1.007
## 268   -9.02e-03  -1.97e-02 -6.21e-04   2.07e-03   3.12e-03   4.43e-02 1.006
## 269   -1.07e-03  -3.03e-03 -2.62e-04   2.56e-05   2.00e-03   7.04e-03 1.008
## 270    2.10e-03  -2.16e-02  1.90e-03  -8.36e-04  -1.79e-02   3.32e-02 1.014
## 271    6.24e-04   3.17e-02 -6.46e-03   1.01e-02   4.08e-02  -1.14e-01 1.015
## 272   -5.01e-04   2.99e-03 -5.83e-04   2.37e-03  -1.77e-03   6.56e-03 1.006
## 273   -1.55e-02  -4.33e-02  1.53e-02   1.37e-02   1.33e-02   1.02e-01 1.002
```

```
## 274    7.31e-05    7.63e-03    1.86e-03   -6.64e-03    6.98e-03   -2.14e-02 1.019
## 275   -5.06e-03   -2.52e-02   -6.28e-03   -5.50e-03    9.09e-03    3.84e-02 1.012
## 276   -2.27e-04   -2.15e-03    7.87e-04   -3.72e-04    5.22e-04    2.81e-03 1.008
## 277   -1.36e-03   -1.26e-02   -1.33e-02   -9.96e-03   -5.43e-03    2.96e-02 1.006
## 278    9.45e-05    2.80e-02    1.06e-02    1.55e-02   -4.59e-03   -5.02e-02 1.004
## 279   -1.37e-02    2.20e-02    6.67e-04    1.78e-02    4.13e-03    6.61e-02 1.004
## 280   -8.51e-03   -3.61e-03    1.02e-03    4.65e-04   -6.82e-03    3.05e-02 1.006
## 281   -9.89e-04    1.10e-02   -8.48e-03    4.49e-03    5.49e-04   -1.96e-02 1.011
## 282   -1.04e-01    1.83e-02    2.40e-01    2.19e-01   -1.96e-02   -1.34e+00 0.890
## 283   -7.95e-03   -8.74e-02   -1.14e-02   -4.36e-02   -9.63e-03    1.10e-01 0.999
## 284   -4.40e-02   -5.57e-03   -8.11e-03   -9.02e-03   -2.22e-03   -5.09e-02 1.025
## 285   -4.22e-03   -2.19e-02    1.89e-02    1.68e-02    9.36e-03    5.27e-02 1.002
## 286   -8.62e-03   -3.98e-04   -2.58e-03   -3.31e-03    1.87e-05   -1.05e-02 1.007
## 287   -1.47e-02    7.66e-03   -5.14e-03    1.25e-02    8.05e-04   -3.46e-02 1.001
## 288   -8.63e-04    4.27e-03    2.38e-04    9.36e-04   -2.91e-03   -1.25e-02 1.006
## 289    2.36e-04   -6.05e-03    6.67e-03    1.80e-03   -7.11e-03    3.27e-02 1.004
## 290    1.85e-02    4.37e-03   -2.85e-02   -2.71e-04    7.56e-03    5.02e-02 1.004
## 291   -5.43e-04   -2.69e-05   -7.73e-04   -2.60e-03   -2.28e-03   -5.23e-03 1.006
## 292   -6.63e-03   -1.94e-03    3.50e-04   -8.69e-04   -1.78e-04   -7.32e-03 1.017
## 293    3.96e-03    3.78e-03   -1.01e-02   -7.37e-03   -1.92e-02   -4.30e-02 1.006
## 294    2.00e-02    1.32e-04    4.69e-03    3.25e-03    4.03e-04    2.27e-02 1.017
## 295    1.05e-02   -1.74e-02    3.05e-02   -3.93e-04   -1.07e-02   -7.94e-02 1.006
## 296    7.99e-02    4.06e-03    6.53e-03    9.81e-03   -2.06e-04    8.80e-02 1.015
## 297   -1.80e-03    8.92e-03   -4.51e-03    4.68e-03   -7.67e-03   -3.13e-02 1.006
## 298    3.43e-03   -1.03e-02   -2.33e-02   -2.10e-02    5.80e-03   -6.62e-02 0.998
## 299   -8.65e-03    2.95e-03    1.66e-02    2.25e-03   -1.26e-02   -8.15e-02 1.001
## 300    2.88e-03    2.06e-03   -4.69e-04    1.77e-03    1.08e-03   -2.41e-02 1.015
## 301    1.57e-03   -1.70e-03    2.63e-03   -2.24e-03   -2.83e-03   -7.59e-03 1.006
## 302    4.55e-04   -4.89e-04   -4.90e-04    2.29e-04   -3.64e-03    5.85e-03 1.009
## 303   -4.32e-03    4.34e-03   -1.26e-02    9.38e-03   -3.68e-03    3.28e-02 1.007
## 304    2.35e-04   -1.08e-04    6.20e-04    1.21e-03    7.62e-04    3.32e-03 1.007
## 305   -3.52e-03   -7.58e-03   -1.45e-02   -1.67e-03    4.57e-03    3.55e-02 1.004
## 306   -3.41e-03   -1.22e-02    1.35e-02    1.58e-02    3.32e-03    3.30e-02 1.006
## 307   -1.92e-03   -1.50e-02    2.15e-04    1.05e-02   -8.18e-03    4.04e-02 1.002
## 308    1.07e-03   -2.77e-03    7.60e-03    1.82e-03    1.32e-03   -1.97e-02 1.004
## 309   -7.64e-04    5.74e-03   -4.91e-03   -1.51e-02   -9.81e-03   -2.83e-02 1.006
## 310    8.39e-05    1.62e-03    3.25e-05    9.01e-05    3.24e-03    9.09e-03 1.006
## 311   -8.43e-03   -4.90e-02   -1.43e-02    1.11e-02   -8.42e-02    1.35e-01 1.001
## 312    2.56e-03    1.72e-02    1.34e-02    1.77e-02    1.55e-02   -6.59e-02 0.997
## 313    1.52e-03   -1.29e-03   -2.63e-03   -1.22e-02   -7.11e-03   -2.15e-02 1.004
## 314   -8.62e-03    9.53e-03   -2.32e-02   -3.82e-03    9.99e-03    4.56e-02 1.001
## 315    9.66e-04    1.00e-03    8.54e-04   -9.54e-04   -3.91e-04   -4.59e-03 1.009
## 316    1.80e-04   -4.15e-04   -3.25e-03    1.09e-03    1.90e-03    1.25e-02 1.005
## 317    8.11e-04    2.09e-02    1.81e-02   -8.00e-03   -9.23e-03   -6.36e-02 1.005
## 318    8.96e-05   -7.84e-05   -5.30e-04   -9.58e-04   -1.61e-04   -1.72e-03 1.006
## 319    2.11e-03   -9.98e-03   -6.01e-04    9.23e-03    1.52e-02    5.08e-02 1.006
## 320   -2.57e-04   -1.22e-02    6.23e-04    2.29e-03    5.42e-03    2.70e-02 1.009
## 321    2.21e-03    2.98e-03    7.14e-03   -6.63e-03   -8.03e-03   -2.67e-02 1.012
## 322   -1.01e-03   -5.17e-03   -4.76e-04    4.71e-03    2.02e-03    1.75e-02 1.004
## 323    1.45e-03    3.28e-03    5.90e-03   -3.45e-03   -2.52e-03   -1.47e-02 1.006
## 324   -1.34e-03   -5.27e-03    4.28e-03   -1.55e-03    4.94e-03    1.78e-02 1.005
## 325   -2.37e-03    2.03e-03    4.08e-03   -8.33e-03   -1.26e-03   -2.53e-02 1.003
## 326    3.14e-03    4.52e-02    5.03e-03   -1.38e-02   -8.66e-03   -1.24e-01 0.997
## 327    6.72e-03    2.60e-03   -2.39e-05    2.54e-02   -2.56e-02    7.79e-02 1.007
```

```
## 328     1.86e-04     5.62e-03 -1.41e-03    1.85e-03 -6.32e-04  1.36e-02 1.006
## 329    -3.90e-04    -1.24e-02  1.94e-02   -2.20e-03  1.00e-03 -3.79e-02 1.008
## 330     1.12e-03    -3.54e-03 -8.74e-04    6.91e-03  8.25e-04  1.50e-02 1.005
## 331    -1.39e-03     4.59e-03 -2.55e-03    2.87e-03 -4.10e-03  1.34e-02 1.006
## 332     5.86e-04     9.78e-04 -3.43e-03   -3.42e-03 -1.76e-03 -5.83e-03 1.009
## 333     8.40e-04     1.07e-03  1.56e-02    6.46e-03 -6.06e-03 -3.57e-02 1.007
## 334     9.91e-04     2.33e-03  1.12e-03    2.80e-04  6.66e-04 -8.87e-03 1.005
## 335    -5.56e-04     8.63e-03 -2.01e-02   -1.08e-02 -9.71e-03 -4.36e-02 1.003
## 336    -5.21e-04    -1.21e-03 -2.88e-03   -3.12e-04  2.79e-04  4.63e-03 1.006
## 337    -6.55e-03    -1.97e-02  1.37e-02    2.29e-02  1.37e-02  7.87e-02 1.000
## 338     1.31e-03    -3.39e-03  7.44e-03   -3.91e-03 -5.53e-03 -1.82e-02 1.008
## 339    -1.32e-02    -5.88e-02  3.88e-02    3.50e-02  8.84e-03  1.17e-01 1.000
## 340     3.02e-03    -3.95e-03 -3.10e-04   -9.40e-03  1.55e-03 -2.42e-02 1.003
## 341    -3.35e-03     2.14e-03  8.62e-03    7.69e-03  5.00e-03  2.59e-02 1.005
## 342    -6.42e-03    -1.03e-02  4.45e-03    3.25e-02 -8.05e-03  7.56e-02 0.998
## 343     8.46e-04    -3.14e-03 -7.25e-03   -9.59e-03 -9.08e-03 -2.39e-02 1.005
## 344     4.87e-03    -7.80e-03 -7.49e-03   -9.64e-03  7.63e-03  5.53e-02 1.010
## 345     7.09e-05     2.00e-04 -3.10e-03   -9.88e-03 -6.25e-03 -1.77e-02 1.005
## 346     4.03e-03     2.10e-02  9.79e-03    3.53e-02  2.37e-02  6.16e-02 1.002
## 347     5.10e-03     6.76e-05  5.05e-03    4.75e-04  3.96e-03 -2.87e-02 1.005
## 348     8.57e-04    -1.52e-02 -8.91e-03   -1.93e-02 -1.46e-02 -4.04e-02 1.005
## 349    -1.70e-04     4.58e-04  1.55e-04   -1.77e-03 -2.69e-03 -6.96e-03 1.008
## 350    -2.68e-04     4.79e-04  1.28e-03    3.17e-04 -1.18e-03 -5.17e-03 1.011
## 351     5.53e-04    -1.90e-03 -9.54e-03    3.16e-03 -1.46e-02 -4.31e-02 1.004
## 352     1.50e-04    -3.21e-03 -2.23e-03   -7.21e-03 -2.93e-02  4.72e-02 1.009
## 353    -1.36e-03    -2.28e-03  9.51e-03    7.18e-03  1.43e-03  2.29e-02 1.003
## 354    -2.92e-04    -6.28e-03  4.44e-03   -3.87e-03  2.50e-03 -1.34e-02 1.007
## 355     4.41e-04     1.68e-03 -3.30e-03    4.80e-04  1.52e-03  7.90e-03 1.010
## 356     1.23e-03    -9.77e-04 -2.02e-03   -2.58e-04  2.99e-03  9.87e-03 1.010
## 357    -1.51e-03     5.33e-03  2.10e-03   -6.36e-03 -3.65e-03 -1.69e-02 1.005
## 358     2.65e-04    -4.35e-04  5.61e-04    1.45e-03  3.09e-04  5.82e-03 1.005
## 359     1.96e-04    -3.41e-04  3.83e-03    3.92e-03  1.60e-03  6.26e-03 1.006
## 360    -2.08e-03    -2.31e-03  1.21e-03    1.69e-03  1.83e-03  1.68e-02 1.006
## 361    -1.11e-04    -5.52e-03  2.34e-02    2.08e-02  1.99e-02  8.61e-02 1.004
## 362     1.63e-04    -2.59e-03  2.24e-03   -5.97e-04 -1.23e-03 -1.05e-02 1.005
## 363     4.75e-05    -2.98e-04 -9.47e-05   -2.90e-04 -1.95e-04 -8.59e-04 1.005
## 364     6.96e-03    -3.36e-03  1.00e-02    8.23e-03  4.36e-03  1.79e-02 1.004
## 365     3.28e-03     2.53e-03  5.39e-03   -3.13e-03  2.50e-04 -1.90e-02 1.008
## 366    -2.35e-04     7.10e-03 -1.71e-03   -7.27e-03 -1.18e-02 -2.97e-02 1.007
## 367     2.78e-04    -2.20e-03 -1.51e-03   -1.15e-03 -2.84e-03 -8.98e-03 1.006
## 368    -3.35e-03    -1.11e-03 -5.31e-03   -1.30e-02 -8.52e-03 -3.98e-02 1.005
## 369    -8.52e-04     7.95e-04  2.46e-03    3.79e-03 -3.34e-03  1.10e-02 1.006
## 370    -4.13e-03     3.09e-03  5.03e-03    4.96e-03  3.58e-03  2.42e-02 1.004
## 371     1.12e-02     1.04e-02  1.18e-02   -5.27e-04 -7.16e-03 -4.19e-02 1.003
## 372     5.93e-03     1.77e-02  1.56e-03   -6.91e-03  2.83e-03 -3.55e-02 1.003
## 373    -3.58e-03     7.79e-03 -6.76e-04   -8.43e-03 -2.70e-03 -2.33e-02 1.005
## 374    -4.97e-04     2.11e-03  3.95e-05   -1.15e-03  2.13e-04 -4.64e-03 1.006
## 375     1.61e-04    -1.10e-03 -1.76e-03   -2.19e-04 -2.37e-04  3.31e-03 1.008
## 376    -3.13e-03     2.27e-02  3.09e-03   -3.20e-03 -3.33e-03 -4.09e-02 1.003
## 377    -2.83e-03    -1.05e-03  2.94e-03   -1.12e-03  1.30e-03 -9.08e-03 1.006
## 378    -3.00e-03     7.39e-03  1.01e-03   -3.97e-03 -5.77e-04 -1.59e-02 1.006
## 379    -3.43e-03     9.51e-03 -7.26e-03   -5.89e-03  1.11e-03 -2.25e-02 1.004
## 380    -6.30e-04     5.99e-03 -5.61e-03   -5.65e-03 -3.49e-03 -1.20e-02 1.005
## 381    -2.40e-03     1.04e-02 -3.95e-03   -5.20e-03 -5.20e-03 -2.22e-02 1.004
```

```
## 382    -1.16e-03    8.45e-04    7.24e-04    -7.38e-04    5.44e-04 -5.93e-03 1.005
## 383    -1.76e-04    1.65e-03 -2.01e-03    -7.60e-04    3.99e-04 -4.48e-03 1.006
## 384     1.23e-03    3.26e-04 -1.02e-03    -9.87e-04    1.79e-04  7.92e-03 1.008
## 385    -3.57e-03    1.72e-02    1.47e-02    -1.28e-02 -1.06e-02 -5.78e-02 0.996
## 386     3.06e-04    3.63e-04 -1.17e-02    -1.45e-02    2.01e-04 -3.70e-02 1.006
## 387    -1.83e-02    9.34e-03 -2.50e-03    -1.11e-02 -1.90e-02 -7.56e-02 1.009
## 388     3.73e-04 -3.62e-03 -1.18e-03    -3.90e-03 -1.26e-03 -1.18e-02 1.004
## 389     3.31e-04 -4.36e-04 -3.32e-03     2.68e-03    4.14e-04  6.98e-03 1.006
## 390     7.22e-05    5.42e-04    2.41e-03    -2.55e-04    6.05e-04 -4.94e-03 1.006
## 391    -2.06e-03    1.06e-02    1.52e-03    -6.54e-03    3.47e-04 -2.03e-02 1.005
## 392    -3.03e-02    2.41e-02 -3.59e-03    -1.69e-02 -1.01e-02 -5.29e-02 1.003
## 393    -1.31e-02 -2.72e-02    1.86e-02     2.36e-03    8.33e-03 -5.57e-02 1.009
## 394    -3.49e-02    4.89e-02    1.12e-03    -3.95e-03 -2.61e-03 -8.26e-02 1.016
## 395    -4.32e-04    7.13e-03    3.37e-03     2.76e-04    2.89e-04 -1.31e-02 1.005
## 396    -2.94e-03    1.08e-02    2.14e-04    -8.59e-03 -4.72e-03 -2.48e-02 1.005
## 397    -3.60e-04    4.42e-03    3.08e-03    -2.48e-03 -1.07e-03 -1.26e-02 1.006
## 398    -2.07e-03    5.64e-03    8.38e-03    -1.62e-03    2.12e-03 -1.86e-02 1.005
## 399    -1.33e-03 -5.61e-04    1.30e-04    -7.33e-04    5.93e-05 -1.99e-03 1.007
## 400    -2.22e-03    6.03e-03 -9.11e-03    -7.35e-03 -1.97e-03 -1.55e-02 1.005
## 401    -2.96e-03 -2.39e-03    5.40e-03    -5.61e-04    4.89e-03  1.15e-02 1.006
## 402    -7.01e-05    4.63e-04    3.02e-05    -1.25e-04 -3.59e-05  1.74e-03 1.005
## 403    -1.81e-04    6.09e-04 -3.52e-03    -1.20e-03    1.35e-03  4.66e-03 1.009
## 404     3.59e-04    3.97e-03 -3.62e-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     2.39e-03    5.07e-03    7.74e-04     9.74e-03 -1.53e-02 -3.96e-02 1.005
## 408    -3.17e-03 -1.89e-02    9.58e-03     1.74e-03 -6.11e-03 -2.82e-02 1.004
## 409    -1.84e-03    3.27e-04    4.98e-03     4.40e-03 -2.22e-03 -1.03e-02 1.006
## 410    -8.93e-03 -1.32e-03    1.63e-02     1.92e-02 -8.60e-03 -3.34e-02 1.005
## 411     4.00e-03 -2.95e-02    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
## 414     2.97e-04    3.42e-03 -7.32e-03    -3.63e-03    3.09e-03  1.01e-02 1.007
## 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     4.55e-03    6.38e-03    7.69e-03     2.46e-03    2.15e-02 -4.76e-02 1.009
## 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    -1.60e-02    3.32e-02 -4.43e-02    -1.33e-02    1.66e-02  6.90e-02 1.002
## 424    -4.48e-03 -3.13e-03    5.20e-03     6.26e-03 -3.37e-03 -1.86e-02 1.004
## 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 -3.96e-03    1.31e-02     1.51e-03 -4.43e-03 -2.54e-02 1.005
## 429    -5.16e-03 -1.33e-03    4.56e-03     1.21e-02 -4.56e-03 -2.30e-02 1.004
## 430     4.16e-04    3.14e-03    5.28e-04     1.86e-03    7.93e-03 -1.10e-02 1.008
## 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    -1.97e-03 -1.93e-03    4.83e-04     6.78e-04 -1.40e-02 -2.66e-02 1.004
## 435    -2.13e-02 -6.75e-03    3.02e-03    -4.92e-03    2.02e-02 -3.95e-02 1.007
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## 436     2.98e-03  -4.38e-03   9.59e-03  -1.10e-02   3.37e-02  -6.66e-02  1.004
## 437     2.71e-03  -2.83e-03   2.26e-04   1.54e-03  -5.15e-03  -2.38e-02  1.004
## 438    -4.64e-04   1.40e-03  -2.92e-03  -2.70e-03   9.82e-04   9.11e-03  1.005
## 439    -1.99e-03   1.71e-03  -3.84e-03  -8.90e-03   5.72e-03   1.63e-02  1.005
## 440    -8.72e-03   6.83e-03  -2.19e-02  -3.50e-02  -4.11e-02   6.34e-02  1.010
## 441    -7.23e-03  -2.24e-02   3.58e-02   2.26e-02  -1.50e-02  -6.49e-02  1.002
## 442     9.16e-03   1.29e-02   3.68e-03  -8.28e-03  -3.67e-02   7.07e-02  1.003
## 443     1.03e-04  -4.78e-03   1.44e-03  -3.95e-04   3.78e-04  -6.06e-03  1.007
## 444    -6.66e-03   1.22e-02  -1.16e-02  -7.08e-03   2.32e-02  -4.25e-02  1.008
## 445     1.48e-03  -1.71e-03   3.88e-03   1.33e-03   1.20e-03  -1.13e-02  1.006
## 446     2.91e-03   1.91e-03  -1.01e-02  -1.77e-03   2.62e-02  -5.08e-02  1.010
## 447    -9.55e-03  -1.54e-02   3.15e-02  -1.26e-02   4.99e-02  -1.13e-01  1.001
## 448     3.99e-03   1.27e-02   5.77e-02  -4.55e-02  -4.10e-02  -1.62e-01  1.000
## 449     7.15e-03   1.29e-03  -1.86e-03   4.54e-03   6.61e-03   1.56e-02  1.006
## 450    -2.44e-03  -4.87e-03   5.56e-03  -2.21e-04   1.06e-02  -1.58e-02  1.008
## 451     1.47e-02  -2.87e-04  -2.58e-06   6.00e-03   1.71e-02   3.73e-02  1.006
## 452    -8.11e-04   9.87e-04  -4.56e-04   2.53e-04  -7.56e-04  -2.48e-03  1.005
## 453    -2.91e-03  -2.91e-02   2.36e-02   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
## 456     2.68e-02  -2.12e-02  -9.76e-03  -1.72e-02  -5.55e-02  -1.28e-01  1.004
## 457    -3.30e-03  -5.71e-03  -1.46e-03   1.62e-04  -4.66e-03   2.37e-02  1.004
## 458     2.05e-02  -1.42e-02   2.73e-02   2.75e-02  -2.55e-02   9.70e-02  0.991
## 459     1.38e-03   3.98e-03  -2.07e-03   1.47e-03   1.99e-03  -7.12e-03  1.008
## 460     7.71e-03   2.15e-02  -3.83e-03  -7.39e-03   1.43e-02  -4.81e-02  1.004
## 461     1.06e-02   4.34e-02   8.87e-03   3.51e-03   1.34e-02  -7.09e-02  1.004
## 462     1.24e-03   3.64e-02  -5.07e-02   2.14e-02  -3.32e-03   1.01e-01  1.003
## 463     2.23e-03  -3.92e-03   6.81e-03  -3.38e-03   2.67e-04  -1.60e-02  1.009
## 464     1.56e-02  -1.34e-02   3.06e-02  -1.06e-02   7.70e-03  -1.36e-01  0.995
## 465     2.12e-02  -4.05e-03  -5.14e-03   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    -9.76e-04   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     2.19e-03   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
## 472     4.74e-03   2.84e-02   5.18e-02   1.56e-02  -4.57e-03   1.39e-01  0.993
## 473    -4.18e-04  -9.63e-03   8.98e-03  -3.07e-04  -5.60e-04  -1.75e-02  1.010
## 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
## 478    -6.22e-03  -1.58e-02  -8.31e-04  -5.48e-02  -1.20e-02  -1.18e-01  0.997
## 479     4.19e-04   2.23e-04   3.69e-05   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     5.85e-03  -3.75e-03  -2.00e-02  -2.03e-03   1.32e-02  -5.27e-02  1.001
## 482    -1.97e-04   9.63e-04   2.43e-03  -8.08e-04   2.24e-03  -8.46e-03  1.006
## 483    -1.48e-02  -1.24e-02   1.22e-02  -2.04e-02  -8.77e-03   5.24e-02  1.007
## 484     1.68e-03  -4.15e-02  -3.32e-02  -9.96e-03  -2.52e-03   1.47e-01  0.990
## 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
## 488    -1.57e-03  -6.73e-03  -3.74e-03  -2.57e-03  -9.22e-04   1.25e-02  1.008
## 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    3.57e-03  1.31e-02  -1.53e-02   1.26e-02 -5.41e-02 1.000
## 492    -3.05e-02    1.33e-02 -2.63e-02  -4.38e-02   3.41e-02  1.08e-01 1.020
## 493    -1.29e-03    6.98e-04 -2.05e-03  -1.34e-03   1.90e-03 -9.97e-03 1.009
## 494    -3.31e-03   -3.38e-03 -6.76e-02  -8.68e-02  -2.87e-02 -1.57e-01 0.997
## 495    -4.80e-02   -1.49e-02 -1.39e-02  -3.60e-02  -4.61e-02  1.76e-01 1.004
## 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
## 499    -3.01e-03   -1.43e-02 -5.10e-03  -8.94e-03  -7.90e-04 -5.00e-02 1.005
## 500     2.06e-05    1.83e-03  5.81e-03  -7.31e-04   2.51e-03 -1.12e-02 1.007
## 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     7.66e-03    1.19e-02 -3.04e-03  -1.60e-03   9.03e-03  2.51e-02 1.002
## 504    -4.63e-03   -3.14e-03  4.30e-03   6.23e-04   8.80e-03  1.72e-02 1.004
## 505    -7.87e-04    3.00e-02 -2.36e-02   1.84e-04   3.57e-02  6.52e-02 0.998
## 506     1.06e-03   -3.71e-04 -4.10e-04  -2.81e-03   2.81e-03  1.47e-02 1.006
## 507    -3.64e-03    8.09e-03  3.68e-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
## 510    -3.54e-02    2.25e-02 -4.70e-03  -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    -2.83e-03    2.85e-02 -2.14e-02   3.55e-02  -3.91e-02  1.35e-01 0.997
## 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     2.94e-03   -4.24e-02  3.05e-02  -1.30e-02  -1.00e-01  1.24e-01 0.996
## 516    -4.35e-04    2.91e-04  1.09e-04  -1.50e-03   6.75e-04  3.74e-03 1.006
## 517     5.61e-03   -2.74e-02  1.70e-02   1.63e-03  -9.77e-03 -3.74e-02 1.003
## 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   8.02e-02   9.88e-02  2.20e-01 0.976
## 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
## 525     8.18e-03   -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    -1.38e-03    9.61e-03 -1.45e-02  -2.73e-03   7.31e-03  2.13e-02 1.009
## 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   -5.75e-04  5.26e-03   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
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## 544   -8.56e-03  -1.20e-02 -3.49e-02  -3.06e-02 -6.60e-02  9.49e-02 1.003
## 545   -7.39e-03   1.08e-02 -6.06e-03   1.57e-02 -3.70e-03  5.39e-02 1.009
## 546    6.82e-04  -1.80e-03 -3.70e-03  -4.21e-03 -4.28e-03 -8.35e-03 1.010
## 547   -2.97e-03   5.03e-03  2.35e-03  -2.69e-03  4.91e-03  1.47e-02 1.004
## 548   -1.48e-03  -2.36e-02 -2.10e-02  -6.69e-03  2.08e-02  7.41e-02 0.992
## 549   -1.37e-02   2.57e-03  1.50e-03   5.79e-04  4.06e-02  8.24e-02 0.990
## 550   -4.68e-03   1.89e-02  9.55e-04   2.14e-04 -5.08e-03  4.83e-02 1.000
## 551   -1.44e-02   3.54e-02 -5.92e-03  -1.16e-02  1.74e-02  5.66e-02 1.000
## 552    1.99e-03   3.08e-02 -3.01e-02  -1.67e-02 -6.06e-02  9.89e-02 1.004
## 553   -1.77e-02  -2.46e-02  7.59e-03  -7.88e-03  2.27e-02  5.59e-02 0.998
## 554   -1.36e-02  -1.45e-02  2.62e-02   3.62e-02 -8.61e-02  1.33e-01 0.990
## 555    3.27e-04  -8.25e-03  5.93e-04  -5.52e-03 -1.78e-02  3.47e-02 1.007
## 556    1.04e-02  -1.57e-02  1.60e-02   3.52e-02  7.41e-02 -1.14e-01 1.002
## 557   -1.27e-02  -5.92e-04  2.32e-02   8.07e-03 -3.28e-02  5.18e-02 1.006
## 558   -2.15e-04   1.23e-05  6.05e-06   2.70e-04  2.17e-04  7.31e-04 1.005
## 559   -1.82e-02   4.96e-02 -6.34e-02  -3.41e-02  3.97e-02  1.24e-01 0.995
## 560   -4.30e-03  -2.74e-03  2.55e-03   8.57e-03 -2.35e-02  3.60e-02 1.008
## 561    7.29e-03   3.75e-02 -2.85e-02   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
## 564   -1.23e-02  -2.66e-02  4.39e-03  -3.17e-02  4.41e-02  9.65e-02 0.984
## 565    9.67e-04  -3.39e-03 -3.04e-04  -2.76e-03 -1.48e-02  1.85e-02 1.008
## 566   -3.00e-03   1.74e-02 -3.61e-02  -1.67e-02  1.12e-02  5.82e-02 1.000
## 567   -4.43e-03  -3.55e-04 -2.82e-03  -8.30e-03  1.06e-02  2.57e-02 1.004
## 568   -1.36e-03  -2.84e-03 -3.84e-04  -8.37e-04  4.89e-04  6.04e-03 1.007
## 569   -6.93e-04  -4.77e-03  4.75e-04   5.00e-03  5.29e-03  1.67e-02 1.003
## 570   -1.64e-02  -1.41e-02 -8.81e-04  -3.05e-02  1.87e-02  6.67e-02 0.994
## 571   -3.36e-03  -2.45e-03 -5.60e-03   1.42e-02 -1.59e-02  5.31e-02 1.008
## 572    3.39e-05   7.35e-06  1.17e-05   3.37e-05  4.47e-05 -1.40e-04 1.005
## 573    5.93e-03   3.63e-02 -1.10e-02   1.19e-02 -5.58e-02  8.93e-02 1.003
## 574   -7.86e-03   2.82e-02 -8.05e-03  -2.63e-02 -5.65e-02  9.81e-02 1.003
## 575   -3.27e-03  -1.22e-03  2.73e-03  -7.71e-04  9.52e-03  2.46e-02 1.006
## 576    1.50e-01   1.04e-02 -2.74e-03   1.98e-02  1.54e-02  1.61e-01 1.012
## 577   -3.23e-04   6.02e-04  9.45e-03   1.09e-02  2.19e-02 -3.14e-02 1.008
## 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    1.80e-04   3.89e-03  3.59e-03   1.21e-02  2.84e-02 -4.00e-02 1.007
## 581    1.61e-02  -2.66e-03 -9.71e-03  -1.02e-03  3.67e-03  2.81e-02 1.006
## 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
## 584    8.31e-02   1.09e-02  1.87e-02   1.12e-03  1.20e-02  9.97e-02 0.997
## 585   -8.51e-04   9.00e-03  5.91e-03  -1.20e-03  1.50e-03  1.25e-01 1.040
## 586   -1.61e-02  -6.85e-03 -3.19e-03  -1.52e-02 -3.17e-03 -4.76e-02 1.007
## 587   -3.26e-03   5.66e-03  9.80e-03   3.88e-03 -7.10e-03 -2.56e-02 1.007
## 588   -2.35e-03  -4.38e-03  8.68e-03  -1.28e-03 -3.79e-03 -3.07e-02 1.007
## 589   -9.34e-03  -5.07e-03 -6.66e-04   3.52e-03  3.18e-04 -2.56e-02 1.006
## 590   -1.74e-03  -9.04e-03 -1.32e-02  -1.07e-02 -3.30e-02  5.43e-02 1.011
## 591   -7.56e-04  -8.87e-04 -5.21e-05  -1.47e-04  1.88e-04 -4.88e-03 1.015
## 592   -4.28e-04   1.07e-03 -9.75e-04  -6.80e-04 -7.84e-04 -2.04e-03 1.007
## 593   -1.17e-02  -2.03e-02  5.40e-03  -1.01e-02  6.47e-05 -4.88e-02 1.004
## 594   -3.71e-02  -7.51e-03  1.84e-03  -1.25e-02 -1.26e-02 -5.25e-02 1.019
## 595   -1.12e-02   2.56e-03  3.89e-03   8.50e-03 -3.20e-03 -2.98e-02 1.005
## 596   -1.16e-03   4.48e-03  4.57e-03   4.01e-03 -2.45e-03 -9.80e-03 1.007
## 597   -1.38e-01  -2.50e-02  2.80e-02  -9.31e-03 -3.22e-02 -1.90e-01 1.005
```

```
## 598    4.15e-04    6.86e-02 -1.03e-02    5.88e-03 -2.06e-03 -8.19e-02 1.000
## 599   -2.76e-02   -1.02e-02 -8.73e-03   -1.83e-02 -1.68e-02 -5.38e-02 1.007
## 600    3.03e-02   -1.53e-02  7.53e-03    4.42e-02 -3.88e-02 -8.00e-02 0.997
## 601    2.31e-03    6.82e-03  5.01e-04    4.90e-04  1.44e-03 -1.13e-02 1.005
## 602    9.83e-03   -3.97e-02  2.35e-02   -1.41e-02 -2.71e-02 -8.71e-02 0.997
## 603    2.59e-03    1.07e-03  1.39e-02    2.76e-02 -1.63e-02 -5.91e-02 1.006
## 604    5.88e-03   -4.52e-02 -3.22e-02   -5.48e-02 -1.93e-02 -1.12e-01 1.008
## 605    2.62e-04    2.49e-03  3.95e-02    3.37e-02 -4.33e-03 -7.35e-02 1.004
## 606   -1.97e-04    2.29e-03 -1.09e-02    2.54e-02 -1.26e-02 -6.90e-02 1.010
## 607   -1.26e-03    3.58e-02 -2.02e-02    4.71e-02 -1.62e-02 -1.05e-01 1.005
## 608    6.42e-03    1.82e-02  6.33e-03    6.84e-03  9.33e-05 -2.94e-02 1.006
## 609   -5.12e-04   -2.11e-02 -1.89e-02    1.16e-02 -1.97e-02 -8.55e-02 1.007
## 610    8.11e-03    4.12e-02  1.61e-02    4.20e-02 -8.10e-03 -8.45e-02 0.993
## 611    1.16e-02   -2.15e-02  3.98e-02    5.68e-02 -1.22e-02 -7.56e-02 1.001
## 612    3.18e-03    5.50e-04  2.16e-03    4.34e-03 -5.72e-03 -1.27e-02 1.005
## 613    9.82e-03    1.14e-02 -3.19e-02   -1.66e-03 -2.43e-02 -8.56e-02 1.001
## 614    7.62e-03    6.26e-03  9.83e-03    1.91e-02 -1.23e-02 -4.31e-02 1.002
## 615   -1.72e-04   -3.97e-04  2.11e-04   -4.28e-04 -1.78e-04  7.88e-04 1.009
## 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    7.61e-03   -2.97e-02  2.15e-02    6.17e-02  9.23e-02 -1.59e-01 0.995
## 619    1.84e-04   -2.49e-03  2.91e-03    1.77e-03 -3.29e-04  4.99e-03 1.008
## 620    5.63e-03    4.02e-02 -1.58e-02    5.56e-03 -7.32e-03 -4.86e-02 1.006
## 621   -4.24e-03   -7.60e-02 -3.00e-02    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
## 624    1.27e-02    1.62e-03 -7.29e-03    3.11e-02 -6.81e-03 -4.91e-02 1.007
## 625    2.34e-02    1.77e-03 -4.41e-02    1.55e-03 -3.55e-03 -9.89e-02 0.991
## 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    2.16e-04   -4.78e-02  5.79e-02    8.97e-03 -7.10e-03 -9.04e-02 1.002
## 631   -3.12e-04   -2.73e-03  4.61e-03    7.19e-04  7.05e-04 -9.20e-03 1.008
## 632    4.14e-03    3.19e-03 -1.27e-02   -8.89e-03  3.25e-03 -2.36e-02 1.005
## 633    2.60e-03   -6.68e-03  2.48e-02    6.98e-03 -5.42e-03 -5.10e-02 1.007
## 634    3.54e-03    7.34e-03 -1.45e-02   -3.43e-03 -7.51e-04 -2.23e-02 1.010
## 635    1.49e-04   -2.69e-04 -1.79e-03    3.61e-04 -4.83e-04  3.68e-03 1.007
## 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    6.66e-03   -1.47e-02  8.66e-03   -2.23e-02  2.31e-03 -5.28e-02 1.005
## 640   -4.19e-03    1.29e-02 -2.67e-02   -1.81e-02 -4.65e-03  3.99e-02 1.007
## 641    6.24e-03   -1.66e-02 -1.18e-02   -1.68e-02 -3.82e-03 -3.76e-02 1.006
## 642    1.58e-02    4.99e-02  8.81e-03    3.71e-03  2.44e-02 -9.47e-02 0.994
## 643    2.40e-03   -1.28e-02  5.41e-03    2.30e-02  5.74e-03 -6.98e-02 0.996
## 644   -3.01e-04   -1.67e-03  1.91e-03   -1.46e-04 -1.46e-03  6.72e-03 1.006
## 645   -2.53e-03    1.61e-03 -7.01e-03   -1.59e-02  7.05e-03 -4.30e-02 1.002
## 646    3.38e-03   -7.14e-04 -6.20e-03   -1.08e-03 -8.91e-04 -1.97e-02 1.005
## 647    1.32e-01    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    9.07e-04    3.04e-02  9.45e-02    6.85e-02  7.29e-03 -1.39e-01 0.986
## 651    2.42e-04   -8.39e-05 -7.40e-05   -1.26e-04 -2.59e-04  1.26e-03 1.005
```

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```
## 652      8.55e-04   1.20e-03  7.67e-05    9.36e-04  4.37e-04 -4.76e-03 1.005
## 653      7.36e-04  -6.51e-03 -2.21e-04   -4.78e-04 -9.57e-04  1.18e-02 1.006
## 654      5.44e-03  -1.40e-03  8.88e-03    1.04e-02 -1.37e-03 -2.14e-02 1.004
## 655     -2.61e-04   5.26e-03  3.40e-03    1.87e-03  2.59e-03 -2.03e-02 1.005
## 656      6.29e-03  -2.08e-02  2.66e-02   -1.42e-02 -8.85e-03 -7.40e-02 1.003
## 657      6.78e-03  -4.43e-02  8.72e-02    1.97e-02 -4.80e-03 -1.06e-01 1.001
## 658     -3.54e-03   2.36e-02 -9.19e-03    3.67e-03 -4.42e-04 -6.85e-02 0.995
## 659      3.07e-04   1.61e-03 -1.72e-03   -2.50e-03  1.49e-03 -1.09e-02 1.004
## 660      1.45e-02  -2.62e-02 -7.31e-02   -2.22e-02 -3.17e-02 -1.57e-01 0.987
## 661     -8.48e-03   7.69e-03  6.98e-02    3.29e-02 -1.46e-03 -1.03e-01 1.005
## 662      6.25e-04   2.26e-02  1.32e-02    1.35e-02 -3.51e-03  4.26e-02 1.004
## 663      2.12e-03  -3.72e-03  4.68e-03   -2.35e-03 -9.17e-04 -1.78e-02 1.006
## 664      3.05e-03   2.90e-02 -2.68e-02    9.73e-03  1.70e-03 -5.33e-02 1.001
## 665      9.48e-05  -1.55e-04 -4.52e-04   -5.36e-04  3.15e-04 -1.21e-03 1.007
## 666     -1.38e-02   2.18e-02 -7.03e-02   -4.31e-02 -2.27e-03  1.51e-01 0.973
## 667     -3.47e-04  -1.13e-03 -1.66e-03   -2.42e-03  5.84e-05  4.41e-03 1.007
## 668     -1.55e-04   5.09e-04 -5.68e-04    2.02e-04  2.86e-05  1.78e-03 1.007
## 669      1.70e-03  -5.32e-03  7.12e-03   -4.46e-03  1.68e-03 -1.84e-02 1.004
## 670     -1.22e-02  -3.40e-02 -3.22e-02    1.73e-02 -5.25e-03  1.17e-01 0.983
## 671      4.02e-03  -1.13e-02  2.04e-02    1.65e-02  1.18e-03  3.47e-02 1.003
## 672      7.95e-03   1.38e-02 -2.00e-02   -1.32e-02  1.41e-02 -5.54e-02 0.997
## 673      5.19e-04   1.61e-03 -5.48e-05    8.35e-04 -1.51e-06 -4.20e-03 1.006
## 674     -1.35e-02  -3.65e-02  3.41e-02   -1.95e-02 -2.98e-03  7.96e-02 0.994
## 675      1.09e-03  -8.13e-03  9.19e-03    1.87e-03 -4.34e-03 -2.49e-02 1.005
## 676      1.70e-03   3.63e-03  4.36e-03    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
## 678     -1.43e-03   2.37e-03  6.31e-03    2.65e-03  1.45e-03 -2.17e-02 1.005
## 679      7.05e-04   6.25e-04 -1.83e-03   -8.29e-04  1.73e-03 -1.02e-02 1.004
## 680      1.78e-03   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      4.35e-03   1.39e-02 -1.45e-02   -8.75e-03  5.90e-03 -2.96e-02 1.004
## 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
## 694      1.62e-03   7.64e-05 -2.79e-03   -2.86e-03 -2.45e-03  1.09e-02 1.006
## 695     -4.59e-03   6.25e-03 -5.78e-03    2.39e-03 -1.21e-02  3.23e-02 1.006
## 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  -1.62e-02 -4.67e-03   -3.13e-03  5.74e-03  2.86e-02 1.006
## 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      1.54e-03   7.40e-03  1.23e-03   -2.57e-03 -2.90e-02  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
```

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## 706    -6.96e-03   -5.12e-04   5.98e-03    1.56e-02   2.04e-02   3.93e-02 0.998
## 707    -9.04e-04    5.12e-03  -8.84e-03   -7.55e-04   8.03e-03   2.35e-02 1.002
## 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
## 711    -1.34e-03   -1.09e-04  -1.17e-03   -2.21e-04  -2.33e-03  -4.66e-03 1.006
## 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     2.38e-03   -4.76e-03   9.65e-04    2.61e-03  -1.07e-02  -2.61e-02 1.006
## 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    9.14e-03   2.54e-02   5.46e-02 0.995
## 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    -6.64e-05   -1.87e-04  -2.67e-04    9.84e-05   1.68e-04   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    -3.18e-04    2.79e-03   9.53e-03   -2.14e-04   5.82e-03   2.00e-02 1.007
## 731    -2.99e-03   -1.21e-02   1.26e-02    6.51e-03   6.18e-03   2.48e-02 1.003
## 732     4.39e-04   -1.54e-02  -1.04e-02   -8.11e-03  -4.02e-03  -3.08e-02 1.004
## 733    -1.70e-03    1.48e-03   4.47e-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    4.92e-04   7.63e-04   2.01e-03 1.007
## 737    -2.59e-03    6.88e-03   4.54e-03   -2.43e-03   1.60e-02   4.05e-02 1.003
## 738    -2.02e-03   -7.18e-04   2.26e-03   -1.06e-02   5.94e-03   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
## 743     1.04e-02   -2.71e-02  -7.33e-03   -1.66e-02  -4.62e-03  -5.55e-02 0.998
## 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
## 748     2.34e-03   -6.67e-02  -1.00e-02    1.66e-03   9.00e-02  -1.48e-01 0.999
## 749     5.39e-03    4.11e-02  -3.06e-03    2.17e-02   4.68e-02   1.11e-01 0.983
## 750    -3.92e-03   -6.15e-03  -4.90e-03   -3.33e-03   5.03e-03   1.96e-02 1.006
## 751    -3.84e-03   -1.60e-04  -2.81e-03   -5.20e-03  -1.42e-02  -3.57e-02 1.004
## 752     1.54e-04    1.14e-03   1.21e-03    1.84e-03   3.09e-03   8.40e-03 1.005
## 753     7.39e-05    2.91e-04   1.95e-04    1.46e-04   4.56e-06   7.29e-04 1.005
## 754    -4.46e-03    3.20e-03  -2.84e-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    -3.86e-03   -8.93e-03   2.68e-03    8.97e-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
```

```
## 760     1.31e-03    3.70e-02 -4.45e-04    4.94e-03  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
## 763    -8.24e-03    1.11e-02  1.30e-02    1.31e-02  4.79e-03  3.88e-02 1.003
## 764    -1.27e-02   -6.66e-03  4.36e-02    1.64e-02  1.08e-02  5.58e-02 1.002
## 765     2.37e-03    1.31e-03 -1.50e-02   -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     4.39e-03   -2.33e-02  2.45e-02    3.69e-03  1.17e-02  4.21e-02 1.001
## 769    -8.85e-04   -1.68e-03 -3.08e-03   -1.33e-03  1.02e-03  5.68e-03 1.005
## 770    -5.82e-04    2.52e-03  3.22e-03    2.99e-03 -8.67e-03  1.29e-02 1.008
## 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    -1.68e-04   -1.21e-03 -2.08e-03    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
## 787    -1.11e-02    1.05e-02 -1.41e-02   -2.41e-03 -1.82e-02 -4.84e-02 1.006
## 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    -9.40e-03    7.88e-03  1.99e-02   -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
## 800    -1.29e-03   -1.70e-03  4.72e-04    5.14e-05  2.63e-03  7.27e-03 1.009
## 801    -6.89e-04   -4.19e-04 -8.44e-06   -5.32e-04  5.43e-04  1.99e-03 1.005
## 802     9.19e-04    6.31e-04 -3.09e-04    1.62e-03 -1.12e-03 -2.76e-03 1.007
## 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
## 808     2.54e-03    2.68e-03  2.10e-03    4.53e-04 -1.52e-03 -1.04e-02 1.008
## 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
## 812     5.25e-02    2.25e-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
```

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## 814   -1.64e-03  -4.62e-04   2.72e-03  -2.97e-04   1.67e-03   5.99e-03 1.006
## 815   -3.48e-03  -2.26e-03   5.58e-03   1.38e-03   6.71e-03   3.23e-02 1.009
## 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
## 818   -1.56e-03  -2.50e-03   5.09e-03   1.99e-03   3.58e-03   9.13e-03 1.006
## 819   -9.32e-04  -1.44e-03  -6.87e-04  -1.18e-03  -1.23e-05   3.46e-03 1.006
## 820   -3.81e-03   1.38e-03   4.25e-03  -7.17e-04   5.97e-03   1.97e-02 1.003
## 821   -9.59e-03  -2.67e-03   2.82e-02  -9.64e-04   6.88e-03   3.67e-02 1.006
## 822   -8.69e-03  -5.76e-03  -2.21e-02   5.40e-03  -2.92e-02   6.15e-02 1.008
## 823    3.02e-04   1.81e-04  -3.99e-04   4.89e-04   2.02e-04  -1.54e-03 1.006
## 824    4.24e-02   1.13e-02  -5.04e-03   4.20e-02   8.38e-03  -1.38e-01 1.001
## 825    1.16e-02   1.07e-03  -1.83e-02  -8.67e-03   3.11e-02  -7.08e-02 1.005
## 826    7.17e-03  -3.94e-03   1.74e-02  -7.15e-03   2.70e-02  -5.66e-02 1.005
## 827    8.50e-05   2.73e-04   4.60e-05  -6.86e-06  -2.36e-04  -6.17e-04 1.011
## 828   -4.57e-03  -1.80e-03  -3.31e-03  -5.06e-03   6.00e-03   1.50e-02 1.007
## 829   -1.93e-03   3.54e-03   6.88e-05   2.04e-03   2.64e-03   1.52e-02 1.005
## 830    2.69e-03   8.84e-04   9.47e-04   4.41e-03  -5.32e-03  -1.83e-02 1.006
## 831    4.07e-03   1.86e-03  -1.35e-03   2.89e-03  -3.41e-03  -1.01e-02 1.006
## 832    1.38e-02   1.33e-02   4.53e-04   6.41e-03   4.52e-02  -6.49e-02 1.004
## 833    7.20e-03  -5.47e-03   4.69e-03   1.46e-02  -8.02e-03  -2.10e-02 1.009
## 834    1.06e-03  -9.36e-04  -1.14e-03   1.25e-03  -2.22e-03  -4.81e-03 1.006
## 835   -1.46e-02  -2.51e-02   1.03e-02  -1.79e-02   1.09e-02   8.11e-02 0.996
## 836   -6.82e-03  -1.70e-03   3.00e-03  -2.21e-03  -1.91e-03   2.29e-02 1.004
## 837   -1.64e-02   2.69e-03  -1.52e-02  -2.54e-02   1.88e-02   5.21e-02 1.008
## 838   -6.51e-03   3.98e-03  -1.29e-03   7.50e-05   3.94e-03   2.92e-02 1.007
## 839   -9.82e-03   1.52e-02  -3.33e-03   9.87e-03   1.51e-02   4.99e-02 1.007
## 840    2.53e-03   5.88e-04  -1.55e-02  -9.41e-03   1.15e-02  -3.39e-02 1.012
## 841   -3.13e-03   2.58e-03   1.37e-03  -1.05e-03   2.88e-03   1.11e-02 1.006
## 842   -7.35e-04  -1.77e-03   1.38e-03  -1.30e-03   1.94e-03   4.87e-03 1.006
## 843    1.62e-03  -1.89e-03  -6.61e-04   1.30e-03   9.78e-04  -7.94e-03 1.005
## 844   -9.03e-03   3.55e-03  -1.55e-02  -1.14e-02   1.21e-02   3.15e-02 1.005
## 845    6.88e-02   1.14e-01   4.06e-03   1.51e-01   8.04e-02  -2.82e-01 0.977
## 846   -9.35e-03  -2.95e-03   1.78e-02  -2.05e-03   1.14e-02   3.88e-02 1.005
## 847   -7.82e-03   1.43e-02   2.02e-02   8.66e-03   3.03e-02   5.85e-02 1.000
## 848    1.37e-02   1.35e-02  -3.59e-02   5.29e-03  -1.19e-02  -6.20e-02 1.000
## 849   -1.32e-02   1.11e-02   2.02e-02   5.41e-03  -2.22e-03   5.48e-02 1.003
## 850    1.27e-03  -1.26e-03  -2.06e-03   7.93e-04   7.66e-03  -1.45e-02 1.008
## 851   -3.92e-03  -4.05e-03   3.14e-03  -3.30e-03   5.69e-03   1.42e-02 1.006
## 852    7.55e-03  -7.78e-03  -5.91e-03  -9.80e-03  -1.40e-02  -4.82e-02 1.005
## 853    9.34e-03   1.18e-02   4.37e-04   3.46e-02   2.35e-02  -4.57e-02 1.014
## 854    1.08e-02  -7.16e-02   5.79e-02  -2.38e-02  -3.76e-02  -1.13e-01 1.009
## 855   -6.90e-03   1.49e-02   1.13e-02   1.76e-03   2.40e-02   5.24e-02 1.008
## 856   -8.85e-04  -5.77e-03  -3.34e-04  -5.13e-04   6.75e-04   8.52e-03 1.005
## 857   -1.55e-04   2.68e-04  -1.47e-03  -1.06e-03   1.32e-03   3.32e-03 1.006
## 858   -5.04e-04  -2.65e-03  -2.20e-03  -1.17e-03  -9.91e-04   5.45e-03 1.006
## 859    6.61e-04  -3.87e-04   4.26e-03   1.59e-03  -1.31e-03  -6.49e-03 1.005
## 860    1.86e-03   4.82e-03   2.61e-02   2.36e-02  -5.66e-05  -3.79e-02 1.007
## 861   -2.64e-05  -1.39e-02  -2.64e-03  -3.13e-03   3.65e-04   2.21e-02 1.004
## 862    3.73e-03   2.02e-02  -9.18e-03   1.32e-02  -1.88e-03  -3.71e-02 1.003
## 863    1.84e-04   6.31e-04  -1.89e-04   4.45e-04   1.90e-05  -1.37e-03 1.006
## 864   -1.57e-04  -7.72e-04  -2.74e-04  -8.47e-04   5.48e-04   2.58e-03 1.005
## 865   -4.19e-05  -5.71e-05  -4.78e-04  -2.71e-04   1.34e-04   7.19e-04 1.006
## 866   -3.34e-05   1.77e-04   2.33e-04   4.54e-04  -5.74e-04  -1.55e-03 1.007
## 867    4.39e-04   3.64e-03  -3.28e-03  -1.03e-03   7.10e-04  -5.63e-03 1.006
```

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## 868   -3.39e-03  -1.00e-02 -6.63e-03  -1.16e-02  7.62e-03  2.98e-02 1.003
## 869    6.76e-04   3.39e-03  9.12e-04   3.65e-03 -1.38e-03 -9.73e-03 1.005
## 870   -7.31e-05  -1.29e-02 -1.81e-02  -2.50e-02  1.49e-02  5.31e-02 1.002
## 871    5.99e-04   3.45e-03  2.08e-03   2.23e-03  1.42e-03 -1.03e-02 1.005
## 872   -2.49e-03   9.35e-03  1.16e-02  -1.38e-02 -1.14e-02 -4.68e-02 1.002
## 873   -9.32e-04  -5.20e-04 -1.47e-03   7.05e-03 -1.10e-02  3.47e-02 1.005
## 874   -2.43e-03  -3.25e-03 -1.16e-03   5.89e-04 -1.95e-03  1.28e-02 1.007
## 875   -3.61e-03   7.16e-03 -5.25e-04   1.20e-02 -7.50e-03  3.23e-02 1.005
## 876    1.12e-04  -1.04e-04  9.25e-04   9.15e-04  3.72e-04  1.69e-03 1.005
## 877   -2.35e-03   1.59e-02 -1.27e-02   8.22e-03 -1.04e-02  3.58e-02 1.005
## 878   -6.04e-04  -1.85e-04  6.77e-03   1.07e-02 -5.09e-03  2.89e-02 1.002
## 879   -2.37e-02   1.77e-02  1.09e-02   4.51e-02 -1.76e-02  1.31e-01 1.001
## 880   -1.22e-04   1.57e-04 -2.64e-05  -4.20e-04 -2.30e-04 -8.71e-04 1.006
## 881   -6.33e-04   1.40e-03 -1.80e-03   1.04e-03 -2.37e-03  7.55e-03 1.006
## 882    3.75e-03  -4.36e-03  6.18e-03   2.08e-03 -9.61e-05 -1.58e-02 1.004
## 883   -5.27e-05   3.93e-04  2.67e-05   5.89e-04 -3.33e-04  1.44e-03 1.006
## 884    6.81e-03  -1.09e-02  2.50e-04  -2.48e-03  3.09e-03 -3.39e-02 1.018
## 885   -6.26e-04  -1.34e-03 -1.13e-02   3.37e-03  1.78e-03  2.03e-02 1.005
## 886   -4.88e-03  -7.16e-03  3.78e-03   4.05e-04  6.27e-03 -5.40e-02 1.013
## 887    2.29e-02  -2.67e-02 -9.94e-03   3.18e-03 -9.40e-03  1.29e-01 1.009
## 888   -2.76e-03   2.10e-02 -2.54e-03   1.90e-02 -7.09e-03  4.14e-02 1.004
## 889   -1.53e-02   2.07e-02 -5.70e-03   2.32e-02 -1.33e-02  6.50e-02 1.000
## 890    9.02e-04  -3.11e-03 -1.51e-02   2.19e-02  2.82e-02  7.01e-02 1.005
## 891   -2.11e-05   3.83e-03 -1.64e-03  -3.60e-03 -7.45e-04 -2.22e-02 1.005
## 892   -7.45e-04  -1.81e-03  1.98e-03   3.35e-03  2.52e-04  6.17e-03 1.005
## 893   -3.25e-03   4.40e-03 -1.29e-02   1.94e-03  4.83e-03  3.27e-02 1.004
## 894   -4.99e-07  -6.01e-05  7.07e-05   7.50e-05  1.31e-05  5.19e-04 1.006
## 895   -6.80e-03  -7.44e-02  1.78e-02   2.76e-02  2.65e-02  1.25e-01 1.006
## 896   -8.11e-03   1.31e-02 -3.87e-04  -9.21e-03  4.79e-03 -4.00e-02 1.005
## 897   -8.27e-03   2.80e-02 -1.29e-04  -1.93e-02  5.04e-04 -4.66e-02 1.005
## 898    1.59e-02  -1.99e-02  1.51e-02  -1.78e-02 -3.93e-03  5.24e-02 1.004
## 899    4.14e-03  -2.86e-03  7.85e-03   7.36e-03 -1.30e-03 -1.35e-02 1.005
## 900    2.18e-02  -2.92e-02  2.72e-02   6.56e-02 -6.29e-02 -1.85e-01 1.006
## 901    3.20e-03   7.73e-03 -4.66e-03   7.59e-03 -1.50e-03 -1.52e-02 1.006
## 902    2.42e-02   2.69e-02 -8.05e-02  -1.04e-01 -8.64e-03  1.34e-01 0.999
## 903   -4.84e-03  -1.34e-02  1.86e-03  -4.01e-03  7.16e-03  3.40e-02 1.004
## 904   -3.75e-03   1.36e-02 -9.19e-03   8.47e-03 -5.53e-04 -2.19e-02 1.006
## 905    1.80e-02  -3.08e-02 -8.24e-03   4.80e-02  2.39e-02 -1.74e-01 1.006
## 906   -2.57e-04   6.71e-04 -2.59e-04  -2.40e-04 -1.41e-04  1.62e-03 1.006
## 907   -8.09e-03  -6.77e-03 -1.02e-02  -6.28e-02 -5.48e-03  8.79e-02 1.004
## 908   -1.22e-02   1.73e-02 -1.37e-02  -2.92e-02 -7.62e-03  5.64e-02 1.002
## 909   -4.05e-04  -2.02e-03  2.10e-03   2.41e-03 -1.15e-03 -5.41e-03 1.006
## 910    6.79e-04  -3.54e-03  4.43e-03   8.71e-03  1.30e-03 -1.24e-02 1.009
## 911   -4.22e-03   6.87e-03  2.53e-03  -2.01e-02  4.97e-03  3.09e-02 1.005
## 912    8.05e-02  -4.72e-02 -9.42e-03   1.44e-01  1.25e-01 -4.22e-01 0.958
## 913   -4.62e-02   7.00e-02  3.00e-02   5.44e-02  9.07e-02 -2.34e-01 0.993
## 914   -3.27e-04   2.48e-05  3.27e-03   1.60e-04 -1.54e-03  7.25e-03 1.007
## 915    4.38e-03  -3.96e-02 -2.13e-02  -3.26e-02  3.59e-03 -7.34e-02 1.007
## 916    7.18e-03  -9.26e-02  5.61e-02  -3.22e-02  4.32e-03 -1.70e-01 0.996
## 917   -1.64e-03  -1.57e-04  8.00e-03   3.85e-04 -1.33e-03 -2.35e-02 1.004
## 918    6.85e-03  -7.15e-02 -7.65e-03  -2.62e-02  2.86e-02 -1.29e-01 0.997
## 919    1.33e-02  -3.13e-02 -2.35e-02   3.90e-03  6.21e-03 -6.99e-02 1.005
## 920    2.81e-02  -6.73e-02  1.38e-02  -1.66e-02 -1.63e-05 -1.15e-01 0.998
## 921    5.80e-02  -1.46e-02 -1.11e-02   7.71e-02  7.91e-03 -1.55e-01 0.970
```

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## 922     2.10e-03     5.09e-03 -3.23e-03     4.19e-03  6.30e-05 -7.92e-03 1.012
## 923     1.97e-02    -7.92e-02  5.52e-02     1.71e-02 -3.61e-02 -1.60e-01 0.991
## 924     1.03e-02    -3.57e-02  2.91e-03     3.68e-03  7.63e-03 -7.00e-02 1.007
## 925     3.76e-02     8.31e-02 -1.14e-01     3.94e-02  9.36e-03 -1.67e-01 0.988
## 926    -1.30e-02    -2.51e-02  7.68e-03     3.07e-03  1.06e-03 -4.23e-02 1.006
## 927     1.71e-03    -7.74e-03  2.68e-03    -1.44e-04  1.98e-03 -1.08e-02 1.015
## 928    -6.24e-03     5.08e-02 -1.05e-02     8.55e-04 -5.38e-03  7.43e-02 1.005
## 929    -2.00e-02    -1.98e-03  1.60e-03     4.90e-03  9.57e-03 -5.58e-02 1.000
## 930     6.65e-02    -6.73e-02 -9.55e-03    -6.84e-04 -6.79e-02 -1.84e-01 1.005
## 931     8.41e-04     5.27e-03 -2.80e-03     1.13e-04  7.05e-04  6.97e-03 1.010
## 932     8.32e-03    -1.43e-02  5.25e-04     1.03e-02  2.82e-03 -3.28e-02 1.005
## 933     1.48e-02    -3.63e-02  2.83e-03     6.86e-03  2.37e-02 -7.77e-02 0.996
## 934    -4.22e-03    -3.91e-02 -3.15e-02    -1.67e-02  2.32e-02 -1.08e-01 1.000
## 935     2.51e-02    -3.79e-03 -3.03e-02     5.55e-03  1.43e-02 -8.33e-02 1.004
## 936     1.93e-02    -9.78e-02  4.27e-02    -1.00e-02  7.00e-03 -1.43e-01 1.006
## 937     4.08e-02    -5.02e-02  5.04e-03     3.72e-02  3.83e-02 -1.40e-01 0.988
## 938     1.50e-02    -6.05e-02  3.74e-02     3.40e-02  3.93e-03 -1.04e-01 0.995
## 939     1.25e-02    -3.95e-02  4.35e-02     3.10e-02 -3.86e-03 -6.63e-02 1.010
## 940    -1.54e-02    -7.18e-03 -6.18e-04    -1.87e-03  8.83e-03 -5.88e-02 1.000
## 941    -2.56e-03    -2.55e-03 -1.15e-02     2.57e-03 -5.30e-03  2.56e-02 1.004
## 942    -1.10e-03     4.41e-03 -7.29e-04    -3.70e-03 -1.19e-03 -1.15e-02 1.005
## 943    -4.42e-05    -7.36e-04  5.23e-04     4.33e-04  4.22e-05  1.26e-03 1.005
## 944     6.68e-04     2.55e-03  2.98e-03    -8.20e-04  1.27e-03 -7.14e-03 1.007
## 945    -5.32e-03     2.16e-03  1.89e-03    -3.92e-03 -2.21e-02 -5.72e-02 1.001
## 946    -4.10e-03    -1.25e-02  1.12e-02     1.21e-02 -1.01e-02  3.65e-02 1.002
## 947     6.55e-03     1.81e-02 -1.57e-02     6.53e-03 -4.92e-03  5.49e-02 1.004
## 948    -8.00e-05    -1.20e-03 -1.32e-04    -1.47e-04 -1.81e-04  1.84e-03 1.006
## 949    -6.13e-05     1.90e-04  1.28e-04    -3.02e-04 -5.33e-06 -1.14e-03 1.005
## 950     1.03e-03     7.24e-03 -8.84e-03    -6.04e-03 -2.98e-03 -1.55e-02 1.005
## 951     5.44e-05    -5.94e-04 -1.09e-04     1.84e-04  2.70e-05  1.10e-03 1.005
## 952     2.10e-04     5.19e-03  9.11e-04    -2.11e-03  1.46e-03 -9.34e-03 1.005
## 953     7.73e-04    -1.11e-02 -2.49e-03     4.46e-03 -1.74e-04  1.97e-02 1.005
## 954    -3.52e-04     1.66e-02 -1.12e-02    -6.36e-03  8.40e-04 -3.02e-02 1.003
## 955    -5.10e-03    -3.13e-03  1.49e-02    -4.89e-03  1.95e-02  5.32e-02 1.001
## 956    -1.96e-03    -5.06e-04 -2.00e-03     1.55e-03 -1.76e-03  9.19e-03 1.007
## 957    -2.04e-03    -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
## 959    -4.60e-03     1.68e-03 -1.05e-02     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
## 963    -1.46e-03    -8.37e-03  7.69e-04    -2.67e-03 -8.20e-04  1.20e-02 1.006
## 964    -3.64e-03    -1.24e-02  5.50e-02     3.33e-02  6.15e-03  7.12e-02 0.998
## 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    -5.20e-03     5.65e-03 -7.06e-03    -4.70e-03 -4.19e-03  4.87e-02 1.003
## 971    -2.81e-03     4.61e-04 -4.78e-03    -2.69e-03  3.86e-03  1.34e-02 1.005
## 972    -1.34e-02     4.74e-03 -1.93e-02    -4.87e-03  1.15e-02  1.37e-01 1.003
## 973     1.82e-04     5.77e-05 -5.58e-05     1.13e-04 -2.55e-04 -6.99e-04 1.007
## 974     1.09e-03    -4.62e-03  2.59e-03    -6.25e-05  3.11e-03 -1.51e-02 1.006
## 975     5.09e-03    -4.53e-02 -9.49e-03    -2.64e-02 -2.13e-02  9.01e-02 0.992
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## 976    -2.25e-03  -6.84e-03   5.62e-03    1.21e-03   2.33e-04   1.39e-02 1.006
## 977    -5.89e-03   1.22e-02   1.72e-02    9.08e-03  -3.27e-03   4.14e-02 1.002
## 978     1.41e-03   5.93e-04   1.56e-03    1.67e-03  -1.49e-03  -4.67e-03 1.006
## 979    -8.83e-03   1.44e-02  -3.01e-02    4.19e-02  -1.27e-01   1.87e-01 0.985
## 980    -8.41e-03  -2.78e-03   5.22e-04    6.85e-03   4.60e-04   4.81e-02 1.004
## 981    -4.66e-03  -2.56e-03  -1.65e-06    1.28e-03   3.58e-03   2.67e-02 1.007
## 982     6.13e-04  -1.06e-03   1.21e-04    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     1.24e-02  -1.21e-02  -2.59e-02   -2.30e-02  -7.10e-03  -5.65e-02 1.000
## 985    -1.31e-03   1.25e-02   7.33e-03    1.23e-02  -6.44e-03   3.43e-02 1.005
## 986     6.99e-04  -6.91e-03   6.01e-03    2.56e-04  -3.04e-03  -1.12e-02 1.006
## 987    -7.75e-03   1.27e-02  -4.51e-03   -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    -2.29e-03  -1.95e-02  -7.78e-03    1.04e-02  -7.10e-02   1.00e-01 1.002
## 992     3.55e-03  -1.76e-03  -2.18e-03    2.68e-03   2.21e-03  -1.26e-02 1.005
## 993     6.41e-03  -3.71e-02   1.78e-03   -3.22e-02  -3.53e-02  -9.80e-02 1.010
## 994    -3.81e-03   7.46e-04  -5.66e-03   -2.74e-03   5.99e-03   2.04e-02 1.006
## 995     5.63e-04  -5.77e-03   2.04e-03   -2.02e-03   2.96e-03  -1.14e-02 1.007
## 996    -3.95e-03  -5.05e-03   2.90e-03    6.91e-04  -1.51e-03   1.64e-02 1.007
## 997    -6.60e-02  -2.01e-02   2.62e-03   -3.02e-02  -2.36e-02  -8.77e-02 1.009
## 998     2.92e-03  -1.49e-03  -6.60e-04   -6.53e-04   1.50e-03   4.81e-03 1.011
## 999     7.86e-03   1.37e-04   9.20e-03    1.37e-02   3.89e-03   2.00e-02 1.009
## 1000    1.27e-02  -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
## 1002   -3.86e-02   1.04e-02   9.93e-03   -8.23e-03   1.06e-02  -6.82e-02 1.003
## 1003   -1.12e-02  -1.52e-02   8.21e-03   -1.81e-02  -1.30e-02  -5.61e-02 1.005
## 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   -4.14e-03  -8.39e-03   1.25e-02    1.71e-02  -4.15e-02   5.32e-02 1.006
## 1010   -3.53e-02  -3.46e-03   4.90e-03    8.18e-03  -3.80e-03  -5.26e-02 1.006
## 1011    2.01e-02   5.96e-04  -1.63e-03   -2.37e-03  -4.80e-03   3.19e-02 1.009
## 1012   -3.00e-03   6.01e-03   2.37e-02    1.63e-02   1.06e-03  -4.90e-02 1.004
## 1013    5.18e-03   4.45e-03  -1.25e-03   -2.20e-03   6.28e-05   2.55e-02 1.022
## 1014   -5.55e-04  -4.46e-03   2.98e-03    1.14e-04   3.86e-03  -2.01e-02 1.006
## 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
## 1017    9.50e-04  -3.16e-04   9.26e-04    5.62e-04   1.13e-03   1.08e-02 1.015
## 1018   -1.81e-02  -2.13e-02   6.03e-03   -7.21e-03  -5.75e-04  -4.95e-02 1.005
## 1019    2.13e-02   5.21e-03  -9.96e-04    4.45e-03   4.07e-03   2.79e-02 1.012
## 1020   -5.08e-03   4.81e-03  -5.17e-03   -6.36e-03   6.01e-03   1.99e-02 1.003
## 1021   -9.87e-04   8.86e-05  -1.63e-04    9.20e-04  -1.59e-04  -8.89e-03 1.010
## 1022   -8.07e-03  -2.53e-02   6.88e-03   -1.44e-02  -1.05e-03   1.49e-01 1.065
## 1023    8.54e-03   7.21e-03   2.29e-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    2.58e-03   4.91e-03   2.29e-03   -1.59e-03  -2.46e-03   4.79e-02 1.039
## 1026   -3.26e-02  -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   -2.75e-02   2.84e-03   1.94e-02   -1.42e-03  -2.30e-03  -4.13e-02 1.005
## 1029    1.32e-03  -7.12e-03  -1.46e-02   -1.57e-02   1.20e-03   2.93e-02 1.005
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## 1030   -3.25e-04   -2.28e-03   3.40e-03    1.84e-03   9.03e-04   7.77e-03  1.011
## 1031    4.77e-04   -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
## 1033    1.37e-02    6.88e-03   8.02e-03    5.52e-03  -6.45e-04   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   -1.11e-02   -1.35e-03  -1.20e-05   -2.80e-03  -2.14e-03  -2.15e-02  1.010
## 1036    4.60e-05   -4.37e-04  -4.01e-04    2.60e-04  -1.88e-04  -4.10e-03  1.016
## 1037   -1.27e-02    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
## 1040   -1.87e-02    9.43e-04   2.34e-02    6.89e-03  -5.87e-03  -6.69e-02  1.002
## 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   -1.11e-03    3.19e-03  -2.43e-03    2.49e-03   1.05e-03  -8.75e-03  1.006
## 1046   -2.84e-03    2.66e-03   6.45e-03   -2.85e-04  -4.39e-03  -1.84e-02  1.007
## 1047   -1.01e-02    1.38e-02  -5.77e-03    1.04e-03   7.09e-03  -4.19e-02  1.003
## 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    1.41e-03   -3.97e-03  -8.20e-03   -8.98e-03  -8.89e-03  -1.97e-02  1.016
## 1051   -2.85e-03    2.00e-02   3.01e-02   -8.96e-03   5.38e-03  -7.06e-02  1.000
## 1052   -3.77e-03   -7.74e-04   1.23e-03    3.34e-03  -1.33e-02   3.47e-02  1.006
## 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
## 1057   -9.48e-03   -8.68e-03   4.81e-03    6.02e-03   6.56e-02  -9.84e-02  1.002
## 1058   -5.31e-03    4.99e-02   4.37e-02    4.24e-02   8.92e-02  -2.48e-01  0.983
## 1059   -1.76e-01   -1.50e-01   8.63e-02   -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
## 1062   -2.73e-03    1.09e-02   5.47e-05    2.00e-03   3.70e-04  -1.28e-02  1.010
## 1063   -1.64e-03   -1.06e-03  -3.08e-03   -2.58e-04   3.13e-04   7.76e-03  1.013
## 1064   -2.85e-03    6.64e-03   4.17e-03    8.64e-03   1.68e-03   1.90e-02  1.005
## 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
## 1067    2.12e-03   -1.07e-02   3.84e-03    4.00e-05   2.84e-03  -1.65e-02  1.008
## 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   -6.70e-03    4.47e-02   7.55e-03    2.42e-02   1.58e-02  -7.12e-02  1.002
## 1072    5.63e-03    1.41e-02  -1.12e-02    1.81e-02   5.04e-03  -5.68e-02  1.004
## 1073    2.98e-02    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    2.30e-02  -1.07e-01   -5.53e-02   4.37e-03   1.63e-01  0.982
## 1077    9.06e-04    3.19e-03  -2.32e-03    1.09e-03  -4.53e-04  -7.70e-03  1.005
## 1078    8.31e-03   -3.79e-03  -2.92e-03   -1.97e-03   7.98e-04   1.31e-02  1.007
## 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    6.62e-03    7.51e-03  -4.26e-02   -5.16e-02  -1.21e-02  -7.15e-02  1.005
## 1083    9.59e-03    9.58e-03   8.31e-03    1.00e-02  -6.73e-03  -3.63e-02  1.003
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## 1084    5.11e-04    1.06e-02  6.12e-03    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
## 1087    1.41e-02    2.93e-02 -1.85e-02    5.33e-02 -1.39e-02 -8.40e-02 0.994
## 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    5.74e-03 -1.45e-02   -5.61e-03  8.63e-04 -1.98e-02 1.006
## 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    1.32e-02 -5.95e-03    2.40e-04  4.28e-03 -5.07e-02 1.002
## 1093    1.84e-02   -6.53e-03 -1.64e-02    1.24e-02  5.93e-03 -5.41e-02 0.996
## 1094    2.67e-02    3.66e-01 -2.31e-02    7.12e-02  7.47e-02 -4.51e-01 0.959
## 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    1.54e-02   -1.20e-02  6.35e-03    1.76e-02  2.68e-03  2.70e-02 1.008
## 1100   -1.85e-03   -8.74e-03 -1.62e-02    1.39e-02  5.04e-04  4.02e-02 1.008
## 1101   -7.20e-05   -6.74e-05  1.02e-04    4.57e-04 -2.80e-04  1.95e-03 1.009
## 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   -1.52e-03   -2.66e-04 -5.10e-05   -2.54e-03  1.34e-03 -6.32e-03 1.006
## 1105    2.82e-03   -5.58e-03  5.65e-04    3.20e-03  1.29e-03  9.89e-03 1.013
## 1106    1.12e-03   -1.23e-03  9.76e-04    3.08e-03 -5.38e-04  5.01e-03 1.006
## 1107    7.10e-04    2.01e-03 -1.59e-03    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   -2.43e-03    5.13e-03  5.80e-03    8.85e-03 -9.35e-04  1.71e-02 1.005
## 1110   -2.56e-03    1.68e-03  2.37e-02    1.65e-02 -7.59e-03 -4.45e-02 1.005
## 1111   -6.60e-05   -7.19e-04  5.33e-04   -1.75e-04 -2.40e-04 -2.12e-03 1.006
## 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
## 1114   -4.04e-03    3.11e-03  1.09e-02    1.99e-02 -2.23e-03  4.21e-02 1.007
## 1115    9.70e-05   -2.12e-03  1.83e-04    2.45e-03  1.09e-03  5.73e-03 1.005
## 1116    1.18e-04    1.20e-03 -2.58e-05    1.07e-03  6.63e-05 -4.46e-03 1.006
## 1117   -7.26e-04    4.66e-04  8.92e-05   -2.41e-03 -3.58e-03 -8.70e-03 1.004
## 1118   -2.10e-03   -2.05e-03  5.74e-03    4.50e-03  1.36e-03  1.11e-02 1.006
## 1119   -4.49e-03   -1.86e-02  5.80e-03    7.10e-03  2.32e-03  2.85e-02 1.004
## 1120   -3.29e-03    3.97e-03 -5.01e-03    2.19e-02  1.05e-02  7.80e-02 0.998
## 1121   -1.21e-03   -2.37e-04  2.00e-03   -2.04e-03 -8.74e-04 -2.16e-02 1.003
## 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
## 1125    5.66e-03   -6.32e-03 -1.30e-02    1.89e-03  1.10e-02  5.18e-02 1.003
## 1126    9.41e-04    5.99e-03 -1.14e-02   -5.43e-03 -6.38e-04 -1.40e-02 1.006
## 1127   -6.47e-06    3.99e-07  6.72e-06   -1.94e-05  9.25e-06 -4.48e-05 1.005
## 1128    2.34e-04    1.56e-03 -1.42e-03   -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
## 1130    2.63e-03   -6.13e-03 -5.15e-03   -3.23e-02  1.26e-02 -6.26e-02 0.996
## 1131    2.22e-03    5.23e-03  2.21e-03   -1.28e-03  1.62e-03 -1.33e-02 1.006
## 1132   -8.61e-05    4.18e-06  3.90e-04    2.32e-04 -2.39e-04  2.21e-03 1.005
## 1133   -6.58e-04    1.71e-02 -2.30e-02   -1.40e-02 -8.04e-03 -4.00e-02 1.003
## 1134    2.55e-04   -6.23e-04  6.78e-04    8.36e-04 -3.16e-04  3.52e-03 1.005
## 1135    2.74e-05    8.31e-05 -1.11e-04   -2.05e-04  4.55e-05 -4.08e-04 1.005
## 1136    9.37e-03    3.49e-03 -1.30e-02   -6.14e-03  7.05e-03 -4.08e-02 1.003
## 1137    1.49e-03   -4.31e-03 -1.76e-03    2.76e-03  7.53e-04  1.21e-02 1.005
```

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## 1138    8.14e-03  -1.87e-02   5.16e-02    2.72e-02   5.04e-03   7.62e-02 0.998
## 1139   -1.72e-02   3.16e-03   1.79e-02   -7.87e-03   1.60e-02   4.87e-02 1.017
## 1140    3.50e-05  -1.12e-04   2.46e-05    5.32e-05   5.09e-05   1.92e-04 1.008
## 1141    2.96e-04   2.20e-03  -3.47e-03   -1.38e-03  -1.60e-04  -4.83e-03 1.005
## 1142    7.77e-04   2.99e-03   3.05e-03    4.05e-03  -7.20e-04   1.08e-02 1.005
## 1143   -4.49e-04  -8.23e-04  -3.95e-05   -6.58e-04  -3.27e-04  -4.11e-03 1.006
## 1144    1.57e-04   2.35e-03  -4.93e-03   -9.56e-03   5.89e-03  -2.44e-02 1.004
## 1145    1.88e-04  -1.64e-03   7.41e-04   -1.19e-03   1.72e-03  -5.10e-03 1.006
## 1146   -1.14e-03   1.06e-03   1.14e-03    9.41e-04   1.22e-04   5.00e-03 1.005
## 1147   -1.98e-02   6.26e-04  -4.09e-02    2.47e-02  -9.62e-03   1.15e-01 1.003
## 1148   -7.48e-03  -1.32e-02   1.69e-02    2.31e-02  -2.24e-03   6.33e-02 1.003
## 1149    1.26e-03  -2.44e-05   4.27e-03   -4.17e-03  -5.86e-04  -1.12e-02 1.006
## 1150   -4.88e-04   4.07e-03  -6.32e-03   -5.37e-03  -1.40e-03  -1.56e-02 1.006
## 1151   -9.35e-03   8.79e-03  -1.11e-02   -1.19e-02   1.13e-03  -2.93e-02 1.003
## 1152   -1.85e-04   2.16e-04  -7.29e-04    1.49e-03   4.08e-04   5.50e-03 1.005
## 1153   -4.08e-05  -7.13e-03   6.21e-03    6.04e-03   5.32e-04   1.28e-02 1.005
## 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    8.62e-03   2.27e-02  -2.79e-02   -1.46e-02   4.80e-03  -6.01e-02 0.994
## 1161   -6.80e-03   4.37e-03  -5.75e-03   -6.95e-03   1.32e-03  -1.55e-02 1.005
## 1162    3.80e-03  -3.85e-03  -4.79e-03    2.65e-03  -5.13e-03  -1.81e-02 1.006
## 1163   -1.12e-02  -1.11e-02   2.96e-02    7.23e-03  -1.04e-02  -7.53e-02 1.005
## 1164    2.67e-03  -8.26e-04  -3.94e-03    1.46e-03  -5.00e-04   1.15e-02 1.005
## 1165    2.21e-03  -6.99e-03   1.95e-02    1.06e-02   6.64e-03   5.36e-02 0.999
## 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
## 1170   -2.78e-05  -3.53e-04  -1.07e-04    1.23e-04  -1.08e-04   7.41e-04 1.006
## 1171    1.87e-04   1.17e-02  -9.47e-03   -1.35e-02   2.99e-03  -2.67e-02 1.003
## 1172   -2.92e-04   4.17e-02   3.63e-02   -3.36e-02  -2.42e-02  -1.48e-01 1.003
## 1173    2.72e-03   1.31e-03  -4.15e-04    7.91e-03   1.61e-03  -1.21e-02 1.005
## 1174   -1.95e-02  -3.51e-02   4.48e-02   -2.11e-02  -4.88e-02   1.46e-01 0.983
## 1175    2.90e-03   1.87e-02  -1.53e-02    3.08e-03   3.97e-03  -3.47e-02 1.002
## 1176   -1.11e-02  -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
## 1178   -2.19e-04  -1.59e-04  -1.12e-04   -4.53e-04   7.22e-06   6.95e-04 1.006
## 1179   -5.99e-04   3.32e-04   1.79e-04    8.59e-05  -1.29e-04  -1.59e-03 1.005
## 1180    2.08e-04   1.99e-03   1.06e-02    9.20e-03   7.75e-04  -1.47e-02 1.012
## 1181   -3.38e-03   4.61e-02  -5.03e-02   -2.11e-02   9.28e-03  -7.03e-02 1.005
## 1182   -3.27e-03   6.32e-03  -3.06e-03   -7.60e-04   4.00e-03  -1.60e-02 1.005
## 1183    8.59e-03  -1.84e-03  -2.36e-02   -1.45e-02   6.32e-03  -4.22e-02 1.006
## 1184    1.66e-03   7.45e-03  -1.56e-03    4.35e-03   2.42e-03  -1.10e-02 1.007
## 1185   -2.94e-03  -3.69e-03   4.30e-03   -4.43e-03   1.03e-03   1.52e-02 1.006
## 1186    9.47e-04   4.25e-04   4.56e-03    3.76e-03   1.11e-03  -8.60e-03 1.005
## 1187   -6.60e-04   3.69e-02  -4.09e-03    3.62e-02  -2.24e-05  -7.30e-02 1.002
## 1188    1.89e-04  -1.09e-03  -2.42e-03   -2.17e-03  -1.33e-03   6.26e-03 1.005
## 1189    1.77e-02  -1.62e-02   4.12e-03    8.84e-03   1.24e-02  -5.34e-02 1.005
## 1190    8.09e-03   1.21e-02  -9.89e-03    3.00e-03   1.10e-02  -4.32e-02 1.003
## 1191    1.57e-03   1.12e-02   1.35e-02    1.81e-02   8.03e-03  -3.07e-02 1.007
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```
## 1192    1.26e-02    6.40e-03 -1.40e-02    2.31e-03  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
## 1195    1.91e-02   -5.92e-02  3.42e-02    1.45e-02 -3.43e-02 -9.22e-02 1.000
## 1196   -2.27e-02    1.48e-02  2.03e-02   -1.63e-02  1.20e-02  6.68e-02 0.997
## 1197    2.68e-03   -2.71e-03 -2.75e-04   -1.13e-03 -3.85e-03 -8.70e-03 1.008
## 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    1.89e-02    1.14e-02  1.65e-02    7.74e-03 -2.46e-02 -9.07e-02 1.007
## 1202    5.38e-03   -4.62e-04  3.53e-03   -6.26e-03 -2.77e-04 -4.41e-02 1.013
## 1203    7.18e-03    1.74e-02  3.81e-03   -1.67e-02  1.42e-02 -1.78e-01 1.006
## 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   -1.56e-03    2.35e-03 -1.70e-04    7.75e-04  3.07e-03  7.87e-03 1.009
## 1208    1.78e-02    1.69e-02  1.04e-02   -2.06e-02  1.42e-02 -1.20e-01 1.007
## 1209   -2.79e-03   -2.00e-03  5.95e-04   -8.12e-04 -6.52e-03  1.69e-02 1.009
## 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    4.50e-03    1.49e-03  1.38e-02   -8.22e-03 -1.08e-02 -3.42e-02 1.009
## 1213    4.07e-03   -2.76e-03  8.06e-03    5.76e-03  1.66e-04 -1.41e-02 1.006
## 1214    1.59e-02    1.10e-02 -3.54e-03   -6.23e-03 -2.16e-02 -5.48e-02 1.002
## 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   -4.56e-03  3.49e-02  1.09e-01 0.979
## 1218   -1.75e-03   -8.66e-04 -1.74e-03    1.88e-03 -1.77e-03  1.58e-02 1.011
## 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    1.14e-02   -1.71e-02  1.46e-02    7.77e-03 -1.94e-02 -4.72e-02 1.001
## 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    2.39e-02    1.59e-02  7.32e-02   -2.47e-02  7.07e-02 -1.74e-01 1.001
## 1230   -1.06e-02   -6.88e-03  1.31e-02    5.44e-03 -3.21e-02  5.33e-02 1.006
## 1231   -4.78e-03    8.98e-03 -1.95e-02   -2.20e-02  9.74e-03  3.68e-02 1.005
## 1232    4.23e-03    1.35e-03  3.45e-03    1.36e-02  1.66e-02 -2.44e-02 1.009
## 1233    1.17e-04   -1.55e-05 -7.96e-05   -1.16e-04  3.74e-04 -8.79e-04 1.009
## 1234    4.53e-05    9.45e-05 -4.77e-04   -7.03e-04  1.76e-04  1.05e-03 1.006
## 1235   -5.68e-03    2.74e-03 -5.78e-03   -7.26e-03 -3.54e-02  4.21e-02 1.006
## 1236   -2.63e-02    3.27e-03 -6.59e-02   -1.55e-02 -2.88e-02  2.06e-01 1.001
## 1237    8.83e-03   -8.46e-03  1.18e-02    9.16e-03  4.76e-03 -3.47e-02 1.003
## 1238    4.38e-03    3.95e-03  4.09e-03    1.49e-02  2.13e-02 -3.53e-02 1.008
## 1239    1.37e-02   -4.77e-03 -9.11e-04   -1.34e-02  1.91e-02 -1.25e-01 1.004
## 1240    1.22e-02   -1.12e-02  3.07e-03    5.71e-03  3.76e-02 -5.36e-02 1.004
## 1241   -2.53e-02    1.02e-02  1.94e-02    1.49e-02  3.05e-02  8.13e-02 0.999
## 1242   -1.31e-02    3.01e-02 -2.08e-02   -2.07e-02  1.32e-02  4.97e-02 1.004
## 1243   -9.10e-03   -9.98e-04 -6.86e-03    3.17e-03 -1.17e-02  4.92e-02 1.010
## 1244    3.57e-02   -1.24e-02  3.44e-02    3.45e-02 -1.35e-02  7.80e-02 1.010
## 1245   -1.71e-02   -3.01e-03 -6.09e-03   -1.14e-02  1.38e-02  4.99e-02 0.999
```

```
## 1246    1.56e-03  -2.77e-03   1.68e-03    9.26e-04 -1.59e-03 -5.38e-03 1.007
## 1247   -2.60e-05   2.42e-04  -1.97e-04   -3.82e-04  3.33e-04  1.04e-03 1.005
## 1248   -1.24e-02  -1.51e-02  -9.17e-03   -1.17e-02 -4.16e-02  9.80e-02 1.008
## 1249    1.56e-02  -4.22e-03   2.53e-02    4.71e-02 -8.39e-03 -7.10e-02 0.995
## 1250   -1.63e-02   1.50e-02  -4.07e-02   -2.03e-02 -3.92e-02  7.49e-02 1.006
## 1251   -7.46e-04   1.17e-04   1.71e-04   -7.67e-06  1.05e-03  2.80e-03 1.007
## 1252   -7.36e-03  -4.48e-03   1.28e-03    9.95e-04 -9.90e-03  4.31e-02 1.011
## 1253   -2.04e-02   3.49e-02  -1.33e-02    1.68e-03  3.38e-02  6.76e-02 1.002
## 1254   -8.42e-04   4.77e-03  -1.27e-02   -8.82e-03 -1.45e-02  2.32e-02 1.011
## 1255   -1.09e-02  -3.67e-03   9.47e-03    4.17e-03 -1.40e-02  5.07e-02 1.010
## 1256    1.39e-02   1.18e-02  -2.47e-02   -1.30e-02  5.39e-02 -8.76e-02 1.001
## 1257   -5.90e-03   1.04e-02  -7.44e-03   -8.65e-03 -4.66e-02  8.57e-02 1.007
## 1258   -2.09e-03   8.49e-03  -1.13e-02   -1.40e-02  2.05e-02 -7.39e-02 1.006
## 1259    5.23e-03   2.83e-03   1.73e-02   -9.28e-03 -1.32e-02 -4.88e-02 1.011
## 1260   -4.48e-03   7.10e-03   3.93e-03    1.10e-02 -1.05e-03  2.35e-02 1.006
## 1261   -3.42e-02  -9.92e-02   3.36e-02   -2.71e-02 -4.21e-03  1.62e-01 0.969
## 1262    4.36e-04   1.06e-03  -2.49e-03   -2.91e-04 -5.40e-04 -3.25e-03 1.006
## 1263   -2.00e-03  -7.28e-03  -5.36e-04    3.29e-03 -7.79e-03 -1.99e-02 1.006
## 1264   -1.61e-03   9.56e-03   2.53e-03    7.10e-03  4.93e-03  1.62e-02 1.007
## 1265   -1.58e-04  -5.00e-03  -9.30e-03   -4.56e-03  1.70e-02  4.48e-02 0.997
## 1266    3.71e-03   7.17e-03  -1.14e-02   -6.83e-03 -2.57e-02  4.02e-02 1.009
## 1267   -1.25e-03   2.15e-03   1.94e-04   -8.43e-04  2.76e-03  7.97e-03 1.007
## 1268    9.40e-04   6.25e-04   3.29e-03   -1.26e-03 -9.73e-04 -7.62e-03 1.009
## 1269   -3.78e-04  -2.13e-03   1.17e-03   -1.65e-04  4.39e-04  3.04e-03 1.006
## 1270   -1.17e-02   4.52e-03  -2.09e-02   -1.57e-02  2.89e-02  5.99e-02 0.996
## 1271   -2.58e-04   5.69e-04   4.16e-03    2.00e-03  1.12e-03  6.66e-03 1.006
## 1272   -1.04e-03  -1.81e-03  -2.95e-03   -1.00e-03 -1.52e-04  7.36e-03 1.005
## 1273    3.52e-03  -2.51e-02   1.69e-02    1.28e-02 -1.48e-02 -5.05e-02 1.005
## 1274   -2.39e-03   1.05e-03  -7.53e-03    2.05e-03  1.96e-03  1.33e-02 1.006
## 1275   -9.09e-04   1.38e-03  -4.77e-03    2.24e-03  6.01e-03  2.20e-02 1.003
## 1276   -9.42e-03  -6.07e-02   7.64e-03   -7.41e-02 -1.06e-01  1.66e-01 0.991
## 1277   -6.21e-03   1.12e-02   6.56e-04    7.91e-03 -4.92e-03  3.06e-02 1.003
## 1278    4.90e-03   1.00e-02   8.39e-03    1.65e-02  2.77e-02 -3.93e-02 1.009
## 1279    1.34e-03   6.07e-04  -4.70e-03   -3.83e-03  8.97e-05 -1.06e-02 1.005
## 1280    1.00e-02  -1.63e-02   7.05e-03    4.08e-03  3.85e-03 -3.38e-02 1.003
## 1281   -1.10e-02   2.61e-02  -5.71e-02   -5.56e-02  1.41e-02  1.06e-01 0.990
## 1282    2.31e-04   1.05e-03  -8.37e-04    3.82e-05  8.03e-04 -2.71e-03 1.006
## 1283   -6.53e-03   8.99e-03   5.79e-03    1.01e-03 -1.05e-03  2.75e-02 1.001
## 1284    1.14e-04   3.74e-03  -1.85e-03   -2.31e-03  4.87e-04 -7.74e-03 1.005
## 1285    2.58e-03   4.10e-03  -1.40e-02   -5.88e-03  4.18e-04 -1.95e-02 1.006
## 1286   -5.14e-04  -7.37e-04   1.54e-03   -5.43e-04  1.37e-03  4.52e-03 1.007
## 1287   -1.08e-02   1.14e-04  -3.34e-02   -2.68e-02  2.07e-02  6.77e-02 0.999
## 1288    5.68e-03  -1.40e-02   3.87e-03    2.24e-02  4.22e-02 -6.53e-02 1.007
## 1289   -2.02e-02   1.80e-02   9.38e-03   -3.73e-02  1.08e-02  6.27e-02 1.002
## 1290    2.17e-02  -7.07e-03  -6.33e-02   -7.81e-02 -2.57e-02 -1.26e-01 0.998
## 1291   -3.88e-03  -3.63e-03   2.46e-03   -8.79e-03 -2.03e-02  2.68e-02 1.008
## 1292    3.16e-04  -7.02e-04  -1.51e-04   -2.91e-04  2.31e-03 -4.15e-03 1.010
## 1293    1.35e-03  -2.94e-02   3.30e-02    1.26e-02 -4.98e-02  1.00e-01 1.001
## 1294   -2.48e-04  -1.05e-04   1.14e-04    2.78e-04 -4.00e-04  2.77e-03 1.005
## 1295    6.75e-03  -4.10e-02   4.21e-02    1.55e-02  2.44e-03 -7.16e-02 1.002
## 1296    1.63e-03  -7.22e-03   3.01e-02   -2.90e-03 -3.39e-03 -7.97e-02 0.999
## 1297    1.88e-01   5.26e-02   2.94e-02    1.71e-02 -1.89e-02  2.28e-01 1.006
## 1298    6.39e-03  -2.02e-02  -9.93e-03   -1.29e-03  9.99e-03 -4.49e-02 1.004
## 1299    4.92e-02   6.61e-02  -9.40e-02    1.25e-03  1.07e-03  1.26e-01 1.018
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```
## 1300   -3.38e-03    5.56e-03   1.28e-02    3.21e-03  -1.12e-02  -4.84e-02 1.003
## 1301   -7.52e-03   -4.97e-04  -2.52e-03    1.10e-02   1.67e-03  -2.29e-02 1.008
## 1302   -4.86e-03   -1.45e-02   1.81e-02    1.34e-03  -1.77e-03   3.29e-02 1.003
## 1303   -2.70e-04   -2.63e-03   2.81e-03   -9.38e-04   1.81e-04  -5.43e-03 1.006
## 1304   -7.50e-02   -4.71e-02  -6.92e-02    1.21e-02   2.14e-02  -1.76e-01 0.989
## 1305    1.47e-02   -3.30e-02  -1.43e-02   -4.20e-03   9.77e-03  -8.98e-02 0.992
## 1306   -3.75e-03    6.76e-03   3.54e-03    7.37e-03  -2.20e-03   1.78e-02 1.005
## 1307   -5.53e-04    2.26e-03  -5.81e-05    1.06e-03  -7.28e-04   4.85e-03 1.006
## 1308    1.34e-03    3.66e-03  -9.01e-03    5.62e-04   1.46e-03   1.52e-02 1.009
## 1309    4.77e-03   -4.51e-04   3.31e-03   -1.33e-03   8.52e-03  -2.35e-02 1.005
## 1310    1.13e-01    1.12e-01  -1.68e-02    5.51e-02  -1.43e-02   2.18e-01 0.986
## 1311    1.73e-02    1.04e-02  -1.02e-02    1.74e-02   9.68e-03  -6.64e-02 0.986
## 1312    4.10e-03   -1.83e-02   4.98e-02    1.88e-02   3.14e-04  -5.69e-02 1.004
## 1313    2.60e-03    4.01e-02  -2.10e-02   -8.32e-03   6.42e-03  -6.10e-02 1.001
## 1314   -6.04e-06    1.90e-05  -5.52e-06    1.81e-05  -6.81e-06   4.78e-05 1.005
## 1315    4.39e-03    1.44e-02  -2.14e-03    9.83e-03   8.05e-04  -2.42e-02 1.004
## 1316   -8.69e-04    7.63e-03   9.92e-03    3.30e-02   1.30e-02   6.55e-02 0.990
## 1317    6.17e-03    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   -2.10e-05    2.54e-04  -6.54e-04    2.30e-04  -4.22e-04   1.66e-03 1.006
## 1320    1.49e-03   -2.13e-02   2.93e-02   -4.61e-03   1.01e-04  -4.54e-02 1.002
## 1321    1.32e-03   -2.97e-03   5.65e-03   -4.78e-03   2.52e-03  -2.77e-02 1.003
## 1322    9.23e-03    4.26e-03   1.11e-02    7.31e-03  -1.32e-03   1.99e-02 1.008
## 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   -1.08e-02   -1.56e-02  -1.30e-03   -3.50e-03   1.13e-02   3.66e-02 0.999
## 1326   -3.50e-04    1.95e-02   8.35e-04    6.03e-03   3.46e-03   4.57e-02 1.001
## 1327   -1.28e-02    8.60e-03  -1.74e-02   -7.19e-03   3.26e-03  -2.61e-02 1.007
## 1328    5.43e-03    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   -1.34e-02   2.17e-02   -3.41e-02  -5.54e-03  -1.26e-01 0.976
## 1332   -1.29e-03    9.49e-04  -2.12e-03   -6.57e-04   1.18e-04   8.45e-03 1.005
## 1333    8.13e-05    5.98e-04   1.44e-03    2.99e-04  -1.13e-04  -3.27e-03 1.006
## 1334    4.93e-03   -7.91e-03  -5.96e-03   -8.69e-03   6.12e-03  -3.29e-02 1.001
## 1335    1.91e-03   -1.57e-02   3.51e-03    3.11e-03   3.22e-06   2.73e-02 1.006
## 1336   -4.93e-05    2.74e-04  -4.47e-04    1.75e-03  -2.31e-04   4.23e-03 1.005
## 1337    4.02e-03   -1.48e-02   2.46e-03   -6.92e-03   4.29e-03  -2.66e-02 1.006
## 1338   -2.24e-03   -4.45e-03   2.05e-03   -3.13e-04  -3.16e-03   1.25e-02 1.006
## 1339    9.49e-04   -2.39e-03   3.20e-03    4.36e-03   2.92e-04   1.59e-02 1.006
## 1340    3.40e-04    8.24e-04  -1.13e-03   -2.55e-04  -1.09e-03  -6.45e-03 1.004
## 1341   -2.16e-03    1.15e-02   8.22e-03   -3.97e-03  -1.80e-03  -3.73e-02 1.005
## 1342    1.88e-03    2.01e-03  -2.58e-03   -3.92e-04   1.50e-04   6.51e-03 1.005
## 1343    7.36e-03    1.25e-02   6.82e-03   -2.18e-02  -6.13e-03  -6.55e-02 1.008
## 1344    9.33e-04    7.30e-03  -3.93e-03   -6.83e-04   1.07e-03  -1.42e-02 1.004
## 1345   -5.29e-03    4.47e-02   4.14e-02    2.26e-03   4.34e-04  -1.22e-01 0.978
## 1346    5.20e-03    1.23e-02  -8.02e-03   -3.31e-03  -2.02e-03  -3.58e-02 0.999
## 1347    1.43e-03   -8.63e-03  -1.62e-04   -2.54e-03  -1.47e-03   1.25e-02 1.005
## 1348   -1.40e-04   -7.21e-05   2.38e-04   -4.05e-05   1.71e-04  -5.74e-04 1.006
## 1349    2.84e-04    6.15e-04  -4.82e-05    2.85e-04   2.09e-05  -1.54e-03 1.005
## 1350    8.40e-02   -8.90e-03  -2.59e-03    3.60e-03  -2.99e-03   8.96e-02 1.026
## 1351   -2.57e-05    3.38e-03  -3.17e-04   -5.61e-04  -3.01e-04  -5.26e-03 1.005
## 1352    2.12e-03   -1.15e-02   3.16e-02    7.10e-03   2.77e-03  -4.38e-02 1.006
## 1353   -6.06e-03    1.25e-02   7.61e-03    3.35e-03  -1.15e-03  -2.22e-02 1.006
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## 1354  -2.07e-03  -7.95e-03   6.67e-03  -9.30e-03 -3.86e-03 -3.00e-02 1.006
## 1355   9.05e-04  -4.96e-02   3.74e-02   2.02e-02 -8.98e-03 -9.64e-02 0.989
## 1356  -9.32e-02  -2.93e-02   1.02e-02  -2.53e-02  6.63e-03 -1.13e-01 1.009
## 1357  -3.05e-02  -3.58e-02  -5.35e-03   1.62e-03  5.91e-03 -6.20e-02 1.011
## 1358   8.53e-04  -6.77e-04  -3.74e-04  -1.48e-03 -8.47e-06 -6.65e-03 1.004
## 1359  -3.85e-05  -1.27e-04   5.57e-03  -4.94e-03  3.12e-03 -1.91e-02 1.006
## 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  -1.50e-03   7.47e-03  -1.65e-02  -5.02e-03 -1.66e-03  2.39e-02 1.005
## 1364   1.30e-04   4.72e-04   3.73e-03  -1.26e-03 -2.09e-03  1.27e-02 1.006
## 1365   2.53e-03   6.05e-03   4.31e-04   7.25e-03 -3.92e-03 -1.57e-02 1.004
## 1366  -1.71e-02  -1.44e-01  -2.22e-02  -1.01e-01  7.27e-02  3.01e-01 0.897
## 1367   1.84e-02  -4.00e-02   1.78e-02  -1.97e-02  3.25e-02  8.53e-02 0.998
## 1368  -5.79e-04   9.26e-03  -1.51e-02  -4.90e-03 -1.47e-02  2.83e-02 1.010
## 1369  -4.72e-03   8.09e-03   6.22e-03  -2.23e-03  8.33e-03  2.37e-02 1.004
## 1370  -1.75e-03   4.45e-03   5.05e-03   6.48e-03 -4.08e-03  2.94e-02 1.003
## 1371  -3.88e-03   6.90e-03  -1.18e-02  -2.50e-03  6.41e-03  2.21e-02 1.003
## 1372   1.11e-03  -1.86e-03  -2.99e-03  -5.89e-04 -4.02e-03 -1.06e-02 1.005
## 1373   6.89e-03   6.44e-03  -4.38e-03  -5.57e-03 -3.97e-02  6.41e-02 1.008
## 1374  -8.12e-05   8.38e-04  -1.15e-03  -8.51e-04  1.26e-03 -3.93e-03 1.010
## 1375  -1.03e-03   1.31e-03   1.36e-03   1.06e-03 -2.21e-03  7.09e-03 1.006
## 1376  -5.37e-03   9.39e-03  -1.04e-02  -4.79e-03 -1.21e-02 -3.25e-02 1.002
## 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
## 1380   6.60e-04  -7.78e-04   1.10e-03   1.09e-03 -6.74e-03  2.01e-02 1.010
## 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  -1.14e-03  -1.37e-02  -5.78e-03  -5.89e-03 -3.11e-03  2.80e-02 1.005
## 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
## 1389   7.00e-04   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   8.02e-03  -8.07e-03  -1.17e-02  -1.25e-02 -9.10e-03 -3.92e-02 1.007
## 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
## 1394  -3.89e-03   1.75e-02  -6.86e-02  -1.22e-02  2.64e-02  1.02e-01 0.996
## 1395  -2.39e-03   1.20e-02  -7.43e-03   1.22e-02  1.59e-02  3.24e-02 1.003
## 1396  -2.96e-02   1.05e-02  -8.38e-04  -1.32e-02 -5.54e-03 -3.64e-02 1.007
## 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  -1.68e-03  -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   8.15e-03  -4.94e-03   2.57e-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
```

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## 1408   -1.09e-03   -1.48e-02    1.31e-03   -1.00e-02 -1.69e-03   3.74e-02 1.003
## 1409   -2.90e-02   -5.25e-03    1.24e-02    4.14e-03  1.29e-02  -6.66e-02 1.001
## 1410   -1.50e-02    9.47e-03    1.34e-03   -1.05e-02  2.61e-03  -3.39e-02 1.005
## 1411   -4.76e-03    6.17e-03    5.55e-03   -3.38e-03  1.02e-02  -3.91e-02 1.003
## 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    3.28e-03   -1.11e-02   -4.70e-03    3.18e-03 -4.36e-03   2.45e-02 1.006
## 1417   -7.65e-03    3.30e-02    6.84e-03    2.18e-02  1.40e-02   5.02e-02 1.003
## 1418   -7.69e-04   -7.94e-04   -2.75e-03   -7.00e-04  1.35e-02  -1.79e-02 1.007
## 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   -7.86e-03   -9.21e-03   -1.75e-02   -4.19e-03  7.52e-03   3.75e-02 1.008
## 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    4.30e-03    1.59e-02    9.73e-03    2.41e-02 -1.24e-03  -3.97e-02 1.006
## 1429    2.90e-02    2.36e-03    6.62e-02   -2.62e-02  6.21e-02  -3.26e-01 0.973
## 1430    1.88e-03    1.16e-04   -2.92e-04    2.26e-03 -3.16e-03  -6.37e-03 1.006
## 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
## 1434    3.72e-03    2.01e-03    1.37e-02    3.20e-02 -1.01e-02  -7.72e-02 0.998
## 1435   -1.65e-03   -3.48e-03    4.87e-03    4.51e-04  4.69e-03   1.30e-02 1.007
## 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
## 1438    1.77e-03    2.72e-03   -8.47e-04    1.11e-03 -1.46e-03  -7.22e-03 1.006
## 1439   -6.49e-03   -1.69e-02   -1.02e-03   -4.69e-03  8.97e-04   2.70e-02 1.005
## 1440    3.73e-03   -4.01e-03   -1.03e-02   -1.95e-02  3.17e-02  -6.93e-02 1.006
## 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
## 1443   -6.11e-04   -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    2.20e-02   -7.91e-03    2.06e-02    5.72e-02 -3.79e-02  -1.12e-01 0.996
## 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   -9.55e-03    1.92e-03    5.33e-03    2.22e-02 -1.20e-02  -3.83e-02 1.009
## 1450   -2.68e-04    9.34e-04    1.80e-03    2.45e-03 -1.52e-03  -1.07e-02 1.007
## 1451   -1.44e-03    2.28e-03    8.86e-04    8.30e-04  2.57e-03   7.79e-03 1.005
## 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    8.44e-03    4.02e-03    8.27e-03 -2.38e-03  -1.98e-02 1.005
## 1454   -2.75e-02    1.98e-02   -4.20e-03    4.46e-03  5.37e-02   1.47e-01 1.004
## 1455   -3.35e-04    5.06e-03    3.15e-03    8.79e-03 -3.80e-03  -2.75e-02 1.006
## 1456   -2.67e-03    4.64e-04   -1.78e-03    8.74e-03  8.44e-03   3.07e-02 1.006
## 1457   -5.10e-03    1.74e-02    2.42e-02    6.01e-03  2.81e-02   6.72e-02 1.005
## 1458   -1.61e-03   -5.94e-03    4.26e-03    4.90e-03 -2.34e-03  -1.77e-02 1.005
## 1459   -5.50e-03    5.41e-03    1.75e-02    2.58e-02 -1.14e-02  -5.61e-02 1.000
## 1460    5.83e-03    7.16e-03    1.12e-02   -7.71e-03 -8.07e-03  -3.20e-02 1.009
## 1461    1.79e-04    2.80e-05   -1.27e-04   -2.35e-04 -4.44e-04  -9.41e-04 1.005
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## 1462  -1.13e-02  -1.01e-02 -2.28e-02  -6.57e-02  2.99e-02  9.24e-02 1.000
## 1463  -1.22e-02  -3.46e-03 -7.39e-03  -3.45e-02  5.09e-02  9.38e-02 0.991
## 1464   6.25e-04  -2.75e-04  1.34e-05  -5.21e-04  1.39e-03 -3.26e-03 1.010
## 1465  -2.84e-04   7.51e-03  1.38e-03   1.35e-02 -4.57e-03 -3.61e-02 1.002
## 1466  -1.36e-04   9.34e-04  1.80e-03   1.00e-02 -7.92e-03 -2.70e-02 1.005
## 1467  -1.19e-02   8.78e-03  1.10e-02   9.82e-03 -9.45e-04 -4.26e-02 1.005
## 1468   2.38e-02   3.92e-02  5.99e-02   1.21e-01 -2.51e-02 -1.41e-01 0.997
## 1469  -2.95e-03  -8.27e-03 -6.88e-03  -1.51e-02  7.28e-04  2.01e-02 1.009
## 1470   2.95e-03  -2.42e-03  1.60e-03   9.79e-03  7.46e-04 -2.08e-02 1.005
## 1471  -2.86e-03  -1.09e-02 -1.93e-03  -9.24e-03 -4.27e-03  3.03e-02 1.002
## 1472  -1.77e-03   2.27e-02 -7.76e-03  -4.22e-03  2.17e-02  4.29e-02 1.002
## 1473  -1.43e-04  -5.75e-04  3.62e-03  -3.16e-03  6.59e-03  1.25e-02 1.007
## 1474  -2.96e-03   3.60e-03  7.71e-03   9.13e-03 -2.55e-03 -1.76e-02 1.006
## 1475  -7.56e-03  -3.65e-03  7.09e-03   1.66e-02 -8.07e-03 -3.12e-02 1.004
## 1476   4.41e-03   2.28e-02  1.79e-02   2.83e-02 -5.44e-03 -5.50e-02 1.001
## 1477   9.83e-04   2.16e-03  1.25e-03   4.97e-03 -1.35e-03 -1.03e-02 1.005
## 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   1.80e-02 -1.38e-02 -4.06e-02 1.000
## 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  -5.17e-04  -7.36e-04  6.88e-03   9.77e-03 -6.72e-03 -2.60e-02 1.005
## 1483  -1.02e-03  -1.57e-03 -2.53e-03   2.55e-03  3.69e-03  1.30e-02 1.006
## 1484  -9.41e-03   1.51e-02  1.62e-03  -2.82e-03 -4.67e-03  4.13e-02 1.000
## 1485   7.61e-04   1.78e-02  7.80e-03   1.46e-02  3.15e-04 -5.10e-02 1.005
## 1486   5.07e-04   2.78e-04  1.22e-03   1.23e-03  2.45e-04 -2.54e-03 1.006
## 1487  -1.93e-02  -4.82e-02 -4.92e-03  -2.52e-02 -1.76e-02 -1.56e-01 1.006
## 1488  -2.80e-03  -4.37e-04  5.38e-03  -1.83e-03  9.31e-03  1.62e-02 1.006
## 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
## 1491   1.02e-03  -4.87e-03 -7.19e-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
## 1494  -4.67e-03  -7.77e-03  1.34e-02  -9.51e-03  6.61e-03  3.60e-02 1.002
## 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  3.33e-01 0.948
## 1498  -2.57e-03  -5.89e-04 -3.94e-03  -1.89e-03 -1.22e-03  1.04e-02 1.006
## 1499  -1.70e-02  -4.08e-03  4.49e-03  -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  -8.05e-03  6.69e-03  3.79e-02 1.002
## 1504  -2.12e-02  -9.92e-04 -5.99e-02  -5.49e-02  3.48e-04  1.19e-01 0.993
## 1505  -3.57e-03   4.68e-03 -1.01e-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  3.14e-02 1.001
## 1508   7.09e-03   9.69e-04  5.12e-03   1.82e-03  2.60e-04  1.96e-02 1.004
## 1509  -7.79e-03   2.45e-03  2.81e-02  -1.43e-02  2.08e-02  7.92e-02 0.997
## 1510  -1.57e-02   8.99e-03  1.03e-02  -1.68e-02 -3.67e-03  5.28e-02 0.999
## 1511   1.25e-03  -8.95e-04  2.68e-03   2.51e-03  3.36e-05  6.55e-03 1.005
## 1512  -1.33e-02  -1.08e-03 -4.38e-04   1.57e-03  2.88e-02 -4.78e-02 1.008
## 1513   1.28e-01   3.92e-02  2.61e-02   6.09e-02 -9.30e-02  1.88e-01 0.993
## 1514   4.87e-03   1.47e-03 -1.55e-02   9.07e-03  5.89e-03 -4.03e-02 1.004
## 1515  -1.70e-03   1.21e-03  3.78e-04  -2.59e-03  2.32e-03  4.96e-03 1.008
```

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## 1516  -1.02e-02   1.31e-02 -5.99e-04  -2.48e-02 -4.11e-02   6.54e-02 1.007
## 1517   6.34e-02  -1.55e-02 -1.17e-02  -1.31e-02  8.06e-03   9.06e-02 0.993
## 1518   1.57e-02  -1.75e-02  3.10e-02  -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   1.97e-04  -1.57e-02  1.05e-02  -7.19e-03  7.37e-03   2.74e-02 1.003
## 1521   9.19e-03   3.59e-03  2.44e-03   4.23e-04 -3.39e-03   1.83e-02 1.006
## 1522   2.87e-02  -2.23e-02  4.21e-02  -3.46e-03  2.05e-02   8.39e-02 0.997
## 1523  -2.43e-02   3.23e-02 -3.65e-02  -3.71e-02  2.56e-02   7.66e-02 1.001
## 1524  -1.72e-02   2.76e-02  1.60e-03  -2.73e-02  5.34e-02   1.04e-01 0.992
## 1525  -2.12e-02   9.51e-03  1.43e-02  -1.11e-02  8.02e-03   5.12e-02 0.998
## 1526   5.07e-03  -1.28e-02  9.34e-03   6.57e-03 -1.09e-03  -1.86e-02 1.006
## 1527  -4.22e-03   1.86e-02  1.57e-02  -1.40e-02 -4.71e-04   5.25e-02 1.001
## 1528  -2.88e-04  -9.28e-03  2.16e-04   4.01e-03  2.35e-03  -1.88e-02 1.007
## 1529  -4.11e-03  -6.26e-04 -1.50e-03  -1.42e-02 -1.99e-02   2.75e-02 1.009
## 1530  -2.33e-03   5.24e-03 -2.72e-03  -5.13e-03 -1.07e-02   1.68e-02 1.008
## 1531   3.24e-03   4.18e-03  1.80e-03   4.90e-04 -5.90e-04   9.47e-03 1.005
## 1532   2.53e-02   6.11e-03 -4.27e-03  -1.99e-02  9.51e-03   4.60e-02 1.005
## 1533  -2.13e-02   1.48e-02  6.60e-03  -1.78e-02  1.27e-02   4.86e-02 1.003
## 1534  -3.91e-03  -2.21e-03  1.67e-02  -2.06e-02  4.72e-03   5.14e-02 1.004
## 1535  -7.85e-03   3.20e-03  6.40e-04  -1.51e-02  1.54e-02   3.71e-02 1.004
## 1536  -2.03e-03   9.10e-03 -1.86e-03   1.14e-03  1.06e-03   1.17e-02 1.006
## 1537  -1.60e-02   1.10e-02 -5.90e-04  -8.98e-03  9.83e-03   4.42e-02 1.002
## 1538  -2.01e-02   2.15e-02  9.68e-03  -2.78e-02 -6.62e-02   1.01e-01 0.998
## 1539  -1.85e-03  -9.61e-03 -3.63e-04  -7.53e-03  2.95e-03   2.08e-02 1.005
## 1540  -9.96e-03   9.94e-04 -1.45e-02  -1.42e-02  1.67e-02   3.89e-02 1.003
## 1541  -1.87e-03   2.36e-03  3.11e-04   1.32e-04  1.64e-03   6.30e-03 1.006
## 1542  -2.97e-02   2.67e-02 -8.33e-03  -2.00e-02  5.25e-02   9.54e-02 0.983
## 1543  -2.67e-02   1.40e-02  3.05e-02  -1.34e-02  1.23e-02   6.75e-02 0.995
## 1544  -7.73e-04  -3.94e-04 -1.10e-03   7.62e-05  8.33e-04   3.64e-03 1.010
## 1545  -6.96e-03   1.46e-03  6.14e-03  -6.41e-03  1.48e-02   3.20e-02 1.004
## 1546  -1.01e-02  -6.23e-03 -8.50e-03  -1.87e-02  3.40e-03   3.00e-02 1.005
## 1547  -4.27e-03   2.65e-03 -1.83e-03  -5.52e-03  3.44e-03   1.23e-02 1.005
## 1548  -3.76e-02  -2.88e-02 -5.55e-03  -8.12e-02 -1.04e-01   1.69e-01 0.989
## 1549  -1.86e-04  -1.70e-04  1.33e-04  -1.92e-05 -1.82e-05   6.70e-04 1.007
## 1550  -3.47e-03   1.12e-02 -2.02e-03  -1.11e-03 -2.19e-03   1.99e-02 1.006
## 1551  -5.60e-03   6.06e-03 -3.46e-03  -1.04e-02  1.19e-02   2.35e-02 1.006
## 1552  -3.02e-02   4.85e-02 -1.24e-02  -1.68e-02  6.38e-02   1.13e-01 0.998
## 1553   2.29e-03  -4.48e-04  2.60e-03  -4.05e-03  3.37e-03   1.57e-02 1.003
## 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
## 1557  -8.99e-03   9.66e-03  4.53e-03  -4.37e-03 -3.87e-03   2.93e-02 1.005
## 1558  -3.76e-03  -9.26e-04  3.30e-03  -3.09e-03  4.64e-04   1.08e-02 1.005
## 1559  -1.31e-03   3.31e-03  1.41e-02   6.01e-03  6.38e-04   2.46e-02 1.005
## 1560   2.02e-02   3.64e-02  2.83e-02   1.33e-02  7.54e-03  -1.14e-01 0.990
## 1561   2.31e-03   1.99e-03 -8.76e-03  -7.44e-03  9.63e-04  -1.50e-02 1.007
## 1562  -3.16e-04  -3.87e-03  2.24e-03  -6.93e-03 -1.50e-02  -3.23e-02 1.004
## 1563   1.11e-03   5.90e-04  4.45e-03  -2.01e-03 -1.22e-03  -1.08e-02 1.009
## 1564   6.79e-04   1.01e-04  5.33e-04  -3.07e-04  1.88e-03  -9.02e-03 1.005
## 1565   3.70e-04  -1.14e-03 -6.69e-04  -1.14e-03  2.57e-04   2.25e-03 1.005
## 1566  -8.97e-05  -1.35e-03 -8.49e-04   7.47e-05 -1.03e-03   2.04e-02 1.004
## 1567   4.63e-03  -7.81e-03  1.53e-03  -1.30e-03  1.10e-02   2.90e-02 1.005
## 1568  -2.97e-02  -1.92e-02 -3.19e-02  -2.60e-02 -3.72e-02  -1.31e-01 0.988
## 1569   4.92e-03  -1.77e-02  1.72e-02   5.07e-03  8.24e-03   4.12e-02 1.009
```

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## 1570  -2.22e-03  -1.87e-03   2.27e-02    2.35e-02   6.17e-04  -5.03e-02 0.999
## 1571   1.73e-04  -5.28e-04  -2.93e-03    3.01e-03   8.85e-03   2.31e-02 1.006
## 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  -6.33e-06  -1.73e-02  -1.46e-02   -2.86e-02  -1.88e-02  -6.39e-02 1.009
## 1575  -4.21e-04   2.15e-04  -9.92e-05    1.40e-04  -2.95e-05  -7.28e-04 1.005
## 1576  -3.44e-04   7.47e-03   1.06e-04    1.93e-03  -5.26e-03  -1.78e-02 1.005
## 1577  -3.81e-03   3.46e-04  -1.46e-03   -3.19e-03  -3.30e-03  -1.08e-02 1.008
## 1578   9.86e-04  -3.84e-04  -3.31e-04    2.53e-04   2.51e-03   6.34e-03 1.006
## 1579  -1.30e-03   4.96e-04   2.42e-03   -1.95e-03  -7.20e-03  -1.53e-02 1.006
## 1580  -1.17e-02   2.85e-02  -5.89e-03    3.75e-03  -3.13e-02  -9.04e-02 0.995
## 1581   1.40e-04  -1.13e-03  -1.15e-03    2.87e-06   5.07e-04   2.74e-03 1.006
## 1582   5.65e-03  -1.23e-02   1.02e-02   -3.98e-03   1.11e-02   3.38e-02 1.005
## 1583  -2.00e-04  -6.66e-04  -6.83e-04   -1.71e-03  -2.51e-03  -6.91e-03 1.005
## 1584  -3.39e-02  -1.70e-02  -1.05e-02   -3.19e-02  -4.47e-02  -9.07e-02 1.002
## 1585  -1.97e-02   1.89e-03  -2.62e-03   -5.86e-03  -3.74e-03  -2.76e-02 1.005
## 1586   4.02e-03   2.56e-03   2.67e-03    1.84e-03   7.28e-04   6.91e-03 1.008
## 1587   1.81e-04  -3.19e-03  -3.49e-04   -2.03e-04   8.86e-04   5.94e-03 1.007
## 1588  -2.84e-03  -4.11e-03   7.95e-03   -1.83e-03  -2.05e-04  -2.00e-02 1.005
## 1589   7.56e-04   4.54e-02  -1.96e-02    6.70e-02  -5.03e-03  -1.31e-01 0.999
## 1590  -6.36e-03   1.76e-03   3.07e-04   -2.24e-03  -5.73e-03  -1.61e-02 1.004
## 1591   3.68e-03  -2.24e-03   3.30e-03    2.53e-03   1.59e-03   7.93e-03 1.005
## 1592   1.58e-03  -6.51e-04   4.73e-03    9.14e-04  -4.07e-03  -1.24e-02 1.004
## 1593  -1.53e-02   8.38e-03  -2.49e-03   -5.37e-03   2.92e-03  -2.95e-02 1.004
## 1594   1.99e-03   8.88e-03  -2.71e-03   -1.47e-04   6.34e-03  -2.16e-02 1.008
## 1595  -3.94e-06   8.61e-03  -3.61e-02    3.78e-03  -1.50e-04   8.09e-02 1.001
## 1596  -4.47e-03  -2.61e-02   2.06e-02    4.37e-03  -1.51e-02   5.22e-02 1.008
## 1597   9.54e-05  -3.45e-04   2.20e-03    7.80e-04  -9.28e-03   1.46e-02 1.009
## 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  -4.43e-05   2.57e-03   7.82e-03   -7.73e-03   1.15e-02  -2.92e-02 1.014
## 1602  -1.19e-03  -2.16e-03   1.23e-02    1.14e-02  -7.63e-03   2.78e-02 1.004
## 1603  -9.38e-04  -5.64e-03   5.32e-03    9.39e-03   3.30e-03   1.66e-02 1.004
## 1604  -3.45e-03   5.28e-03  -3.05e-03   -6.06e-03   4.23e-03   4.02e-02 1.001
## 1605  -4.14e-03   3.27e-03  -5.39e-04    1.15e-02   9.00e-04   2.54e-02 1.003
## 1606   2.00e-03  -8.19e-03  -2.62e-03    6.64e-04  -1.74e-03  -1.66e-02 1.004
## 1607  -1.60e-03  -1.44e-03   7.62e-03    8.97e-03  -2.55e-03   2.34e-02 1.004
## 1608   2.50e-03  -1.02e-02   4.72e-03    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    3.90e-03  -1.70e-03   6.80e-02 0.992
## 1611   3.97e-04   1.79e-03  -1.69e-03   -1.13e-03  -1.05e-03  -4.94e-03 1.005
## 1612  -5.62e-03   5.87e-03   6.24e-03    7.99e-04   9.37e-03   2.54e-02 1.003
## 1613   2.23e-04   2.71e-03  -5.84e-03   -4.26e-03  -1.16e-03  -8.86e-03 1.005
## 1614   1.10e-04   3.56e-03  -8.42e-04   -2.06e-03  -1.53e-03  -5.96e-03 1.007
## 1615  -1.30e-03  -1.66e-03   4.01e-03    3.88e-03  -6.41e-04   9.37e-03 1.005
## 1616   8.82e-03  -1.06e-02   5.70e-03    8.26e-03  -4.92e-03   3.22e-02 1.003
## 1617   1.39e-03  -4.97e-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  -1.11e-04   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    6.73e-02  -8.94e-03   1.02e-01 0.997
## 1622  -1.41e-03   7.76e-03  -1.53e-05    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
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## 1624    6.72e-04   -6.17e-04   2.34e-03   -1.30e-03   1.06e-04  -4.44e-03 1.006
## 1625   -2.31e-03   -1.60e-02   1.92e-02    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
## 1627   -4.59e-04   -6.24e-03  -3.15e-03    7.30e-03  -1.55e-03   1.94e-02 1.004
## 1628   -3.58e-03    3.04e-03  -7.21e-03    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   1.77e-02 1.006
## 1631   -5.60e-03   -8.63e-03   1.05e-02    5.37e-03   8.99e-03   3.27e-02 1.004
## 1632   -4.32e-03    4.70e-03  -5.64e-05    1.36e-04   1.09e-02   3.16e-02 1.001
## 1633    3.67e-02   -1.72e-02  -1.06e-02    7.02e-02   4.11e-03  -1.02e-01 1.024
## 1634    3.81e-03   -1.42e-02   3.17e-02    2.08e-02  -1.95e-03   4.81e-02 1.000
## 1635   -3.64e-03   -2.01e-02   2.82e-02    1.88e-02   1.19e-02   5.04e-02 1.005
## 1636    3.80e-04   -6.65e-04  -1.00e-02    7.64e-03   1.02e-02   2.56e-02 1.005
## 1637    2.08e-03   -2.78e-03   5.59e-03    4.03e-03  -1.18e-03  -1.71e-02 1.005
## 1638   -3.23e-04   -8.84e-03  -1.91e-03    3.57e-04  -5.23e-03   1.90e-02 1.005
## 1639   -4.77e-03   -1.20e-02   1.44e-02    1.14e-02   8.22e-03   3.08e-02 1.002
## 1640   -1.90e-03    3.93e-03  -1.45e-03    4.79e-03   2.34e-04   1.42e-02 1.004
## 1641   -4.21e-03   -1.04e-02   2.16e-02    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   -1.16e-03   -3.16e-03   3.29e-03    2.13e-03  -1.29e-03   7.49e-03 1.005
## 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   3.90e-03   1.28e-02 1.006
## 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    6.05e-03   -3.88e-02  -6.21e-03   -3.34e-02  -2.91e-02  -1.10e-01 0.995
## 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
## 1665   -7.77e-04   -3.44e-03   3.87e-03    2.33e-03   7.63e-04   5.96e-03 1.006
## 1666   -2.31e-03    1.00e-03   1.36e-02    1.94e-02   1.14e-02   3.42e-02 1.004
## 1667    1.66e-02   -1.88e-02   8.43e-03    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   -1.27e-03   -8.47e-05   4.01e-03    4.78e-03  -9.43e-04   8.10e-03 1.006
## 1671   -1.20e-04   -4.93e-04  -4.07e-05    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   -4.98e-04   -1.78e-03   3.30e-03    2.87e-03  -1.35e-03   7.65e-03 1.006
## 1677    2.03e-03   -9.44e-03  -4.26e-03   -1.06e-02  -1.49e-02  -3.24e-02 1.006
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## 1678  -1.65e-03   4.39e-03   3.07e-04    2.52e-03 -2.50e-03   9.28e-03 1.007
## 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
## 1681   1.11e-03  -1.53e-02   2.03e-02    2.08e-02  1.04e-03   3.35e-02 1.005
## 1682  -3.32e-03  -7.70e-03  -2.62e-02    1.66e-02 -3.21e-03   5.78e-02 1.004
## 1683  -2.33e-04  -1.45e-02   1.10e-02    6.57e-03 -6.56e-03   2.95e-02 1.003
## 1684  -3.10e-02   4.11e-02  -1.88e-03   -3.88e-02 -4.33e-02   1.13e-01 1.006
## 1685  -1.55e-03  -8.35e-03  -6.79e-03   -7.55e-03 -1.07e-02  -3.76e-02 1.003
## 1686   3.35e-02  -2.40e-02  -1.41e-03    5.72e-02 -4.16e-02  -9.63e-02 0.993
## 1687   1.63e-01   2.77e-02   2.82e-02    4.62e-02 -1.20e-02   2.02e-01 0.996
## 1688  -2.09e-03  -9.82e-03   1.63e-02   -2.99e-03  1.25e-04   2.87e-02 1.006
## 1689  -4.25e-04   2.18e-05  -3.56e-04   -4.56e-04 -5.10e-04  -2.26e-03 1.006
## 1690  -1.45e-03  -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   1.68e-02   7.09e-03   -3.28e-03 -1.78e-02  -8.15e-02 0.998
## 1693   5.96e-03  -4.96e-05   1.99e-03    1.42e-03  3.27e-03   1.08e-02 1.004
## 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  -2.69e-03  -2.89e-03   1.34e-03   -2.36e-03  7.73e-04  -6.89e-03 1.005
## 1698  -4.89e-04  -4.54e-03  -1.13e-03    8.43e-04 -4.25e-04   7.50e-03 1.006
## 1699  -5.36e-04   5.23e-03  -6.48e-03   -8.29e-03 -1.47e-03  -1.78e-02 1.005
## 1700  -1.61e-05  -2.21e-03   4.92e-04    1.78e-03 -4.27e-04   5.07e-03 1.005
## 1701   2.87e-03   5.23e-03  -3.78e-02   -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
## 1704   2.37e-04   6.72e-04  -1.43e-03   -1.63e-04 -1.28e-05  -2.60e-03 1.005
## 1705   6.22e-05  -6.51e-04   3.67e-04   -2.38e-04  6.41e-04  -2.39e-03 1.006
## 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
## 1710   1.33e-02   1.12e-02   7.57e-03   -2.56e-02 -5.94e-03  -7.91e-02 1.003
## 1711   1.60e-03  -5.39e-03   3.21e-03   -8.62e-04  4.25e-03  -1.53e-02 1.006
## 1712   2.66e-04   1.30e-03   3.46e-03    5.98e-04 -5.50e-04  -7.86e-03 1.005
## 1713   7.40e-05   7.37e-04  -6.02e-03   -5.62e-03 -2.45e-03  -1.00e-02 1.005
## 1714  -2.82e-03   1.41e-03  -9.40e-03    2.86e-04  5.00e-03   2.42e-02 1.004
## 1715  -9.25e-04   1.46e-03   5.44e-03   -3.06e-03 -2.90e-04  -1.47e-02 1.005
## 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  -1.43e-03  -1.96e-03   9.12e-06    1.13e-03 -1.58e-03   1.24e-02 1.006
## 1720   3.87e-04  -2.24e-03   2.27e-03    1.25e-03 -5.36e-04   4.78e-03 1.006
## 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   5.42e-03   4.89e-03  -2.42e-02   -3.61e-03  2.95e-03  -3.54e-02 1.002
## 1725   4.59e-04  -2.70e-04  -6.28e-03   -5.07e-03 -5.21e-04  -9.49e-03 1.005
## 1726   2.31e-04  -1.05e-03   1.43e-03    2.22e-03  1.19e-03   5.40e-03 1.005
## 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   1.54e-03   1.37e-03  -6.11e-03    8.09e-05  1.42e-04  -9.56e-03 1.006
## 1731   5.15e-05  -7.55e-04  -5.05e-04    1.52e-04  1.08e-04   1.50e-03 1.006
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## 1732  -1.37e-03  -2.13e-03  -4.02e-03    1.43e-03   4.08e-03  -1.75e-02 1.004
## 1733   2.99e-04  -2.23e-03  -3.90e-04    6.32e-04  -3.71e-05   5.32e-03 1.005
## 1734   2.06e-03  -6.86e-04   1.69e-04    8.33e-05  -5.67e-04   3.09e-03 1.006
## 1735  -7.30e-03   2.38e-03  -2.84e-04   -2.17e-03   7.22e-04  -1.01e-02 1.006
## 1736  -2.81e-03   4.22e-03   2.21e-04   -1.80e-03  -6.46e-04  -7.20e-03 1.006
## 1737  -1.84e-03   4.96e-03  -7.44e-04   -7.47e-03  -3.45e-03  -2.45e-02 1.003
## 1738  -1.90e-03   2.13e-02  -8.20e-03   -1.23e-02  -4.19e-03  -3.19e-02 1.004
## 1739  -3.15e-05   4.88e-04  -3.76e-04   -5.12e-04  -1.79e-04  -1.60e-03 1.005
## 1740   7.33e-03   1.85e-02  -3.19e-02    7.26e-03  -8.92e-03  -5.31e-02 1.000
## 1741   1.72e-03   6.23e-03  -5.40e-03    1.09e-03   8.91e-04   1.56e-02 1.006
## 1742   1.11e-03  -1.41e-03   4.81e-04   -1.20e-03   2.27e-03  -9.77e-03 1.007
## 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   5.46e-03  -1.61e-02   3.81e-03    4.59e-03   9.21e-03   3.18e-02 1.011
## 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
## 1750  -6.50e-05   4.04e-04  -3.03e-04   -1.85e-04   1.54e-06  -6.96e-04 1.006
## 1751   7.14e-03  -1.28e-02   1.51e-02    1.59e-02   1.00e-03  -3.22e-02 1.003
## 1752   8.06e-04  -8.00e-03  -6.53e-03   -1.32e-02  -3.10e-03  -2.69e-02 1.002
## 1753  -7.05e-03   6.22e-03  -1.91e-02   -9.81e-03  -6.09e-03  -4.63e-02 1.005
## 1754   1.18e-03   2.87e-03  -2.97e-03   -1.89e-03  -7.83e-04  -1.55e-02 1.004
## 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
## 1758  -3.88e-04   3.83e-03  -7.33e-03   -4.97e-03  -1.84e-03  -1.71e-02 1.004
## 1759  -8.61e-05  -3.63e-03  -3.00e-03    4.24e-03  -2.84e-03   1.83e-02 1.004
## 1760   4.25e-05  -7.92e-05   3.00e-03    3.74e-03   8.56e-04   6.34e-03 1.005
## 1761   1.48e-04  -1.31e-03  -2.08e-03    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   1.52e-03  -1.61e-03   3.23e-02    3.12e-03   1.23e-02  -5.16e-02 1.002
## 1765   2.38e-03  -1.19e-02  -1.82e-03    8.61e-04  -4.97e-03   2.21e-02 1.006
## 1766  -8.40e-04   5.44e-03   2.23e-03    3.31e-04   2.04e-03  -9.40e-03 1.006
## 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
## 1769  -4.88e-04   2.78e-04  -4.80e-04    3.54e-04   1.16e-03   2.17e-03 1.006
## 1770  -4.67e-05  -3.97e-05  -7.23e-05    1.85e-04   1.88e-04   8.24e-04 1.006
## 1771   1.78e-03  -1.96e-03   1.01e-02   -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
## 1774  -4.38e-03  -6.83e-03   1.43e-03    2.14e-02  -4.03e-02   7.40e-02 1.004
## 1775  -7.71e-03  -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   1.35e-03   2.71e-03   2.78e-03    1.81e-03  -6.42e-04  -6.28e-03 1.006
## 1779   1.63e-04  -5.93e-04   3.27e-03    1.79e-03  -9.59e-03  -1.66e-02 1.004
## 1780  -4.64e-03  -6.22e-03   2.59e-03    3.07e-03   1.38e-02   3.13e-02 1.005
## 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  -4.74e-03   2.86e-03  -2.83e-03    4.26e-03   1.54e-02   2.98e-02 1.007
## 1785  -4.48e-05  -1.89e-05   8.36e-05    6.56e-05  -1.17e-04   2.47e-04 1.008
```

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## 1786     4.01e-03  -2.34e-03 -1.41e-03    7.32e-04   6.35e-04 -1.64e-02 1.005
## 1787     2.86e-03  -1.76e-03 -8.94e-03   -1.28e-02  -9.29e-03 -3.49e-02 1.005
## 1788    -2.91e-03   2.88e-03  1.29e-03    1.13e-03   7.60e-03  1.89e-02 1.009
## 1789    -9.53e-03   2.36e-03 -6.45e-03    3.25e-03   1.04e-02  3.31e-02 1.005
## 1790     1.08e-04  -1.14e-03  1.24e-03    1.38e-03  -1.38e-03 -3.84e-03 1.007
## 1791     1.84e-04  -1.65e-05  2.16e-04    2.50e-04  -4.65e-05 -5.87e-04 1.005
## 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
## 1795    -2.29e-03  -2.23e-04  1.93e-03   -2.42e-03   1.58e-03  6.77e-03 1.005
## 1796    -2.69e-02  -4.26e-02  1.67e-02   -8.44e-02   1.30e-02  1.18e-01 0.992
## 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     9.44e-04  -4.21e-03  2.27e-03    1.44e-02  -2.74e-03 -1.94e-02 1.011
## 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    -7.88e-06   2.09e-06  3.06e-06    9.82e-05  -2.12e-05 -1.23e-04 1.010
## 1807    -8.58e-03  -4.58e-03  2.61e-02    2.34e-02  -4.26e-03 -4.40e-02 1.006
## 1808    -7.14e-04   1.77e-03 -4.48e-04   -2.90e-03   2.06e-03  5.45e-03 1.009
## 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
## 1812    -6.90e-03   2.23e-03 -5.03e-03   -3.82e-02   1.21e-02  5.15e-02 1.007
## 1813    -3.88e-03  -1.59e-02 -1.72e-02   -2.09e-02  -1.53e-02 -4.69e-02 1.015
## 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
## 1816    -2.24e-03   4.58e-02 -1.09e-01   -8.80e-02  -9.16e-02  1.72e-01 1.001
## 1817     2.44e-01  -5.61e-03  2.24e-02    3.35e-02  -2.24e-02  2.67e-01 1.038
## 1818     4.91e-01   8.97e-02  2.06e-02    8.81e-02  -6.79e-03  5.39e-01 1.036
## 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
## 1821    -3.48e-02   6.96e-04 -2.68e-02    8.84e-03  -9.63e-03 -6.50e-02 1.006
## 1822     7.20e-03   2.82e-03 -5.05e-03   -1.48e-02   5.36e-03  3.70e-02 1.006
## 1823    -4.73e-03   1.54e-02 -5.12e-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
## 1827    -2.92e-02  -9.13e-03 -7.11e-02   -4.88e-02   2.72e-02  1.25e-01 0.992
## 1828     2.93e-03  -1.89e-03  4.14e-04   -2.24e-03   1.79e-03  6.59e-03 1.012
## 1829    -4.64e-03  -2.31e-02 -1.90e-02   -4.31e-02   1.30e-02  6.44e-02 1.004
## 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     2.71e-03   1.72e-02 -8.67e-03   -1.28e-02  -3.39e-03  3.11e-02 1.006
## 1833    -2.65e-02  -2.37e-03  2.64e-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    -3.18e-03   4.59e-03  3.57e-03    1.12e-02  -1.49e-03 -1.52e-02 1.006
## 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    2.57e-04   3.53e-03   1.09e-03    1.29e-02  -6.56e-03  -2.48e-02 1.003
## 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   -6.10e-03  -4.61e-04  -1.05e-02   -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
## 1849    3.05e-01  -6.50e-03   1.78e-02    1.05e-02   1.30e-02   3.31e-01 1.021
## 1850   -3.61e-03   9.98e-04   5.25e-03    1.65e-02   6.24e-04  -2.25e-02 1.007
## 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  -3.04e-03  -2.30e-04    2.65e-03  -5.47e-03  -1.33e-02 1.007
## 1856    3.07e-02   5.03e-03  -7.15e-03   -5.04e-02  -6.92e-02   1.12e-01 0.999
## 1857   -2.93e-05   4.66e-06   1.79e-04    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   4.36e-03   2.03e-03   -1.39e-02  -8.11e-04   2.31e-02 1.004
## 1861   -4.21e-03   2.38e-03   1.16e-03    9.43e-03  -1.41e-03  -1.74e-02 1.008
## 1862   -1.34e-03   6.82e-03  -6.03e-03   -5.13e-03   2.44e-03   1.16e-02 1.006
## 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
## 1866    3.79e-02   7.09e-02  -7.98e-02   -1.14e-01  -2.44e-02   1.75e-01 0.997
## 1867   -3.97e-04   8.35e-04  -2.04e-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
## 1875   -4.01e-03  -6.73e-03   1.82e-02    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
## 1877   -6.30e-04   1.57e-02  -7.33e-03    1.10e-02   1.61e-03  -2.66e-02 1.005
## 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
## 1884   -8.40e-03   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   -5.26e-03   7.25e-03  -2.42e-03   -1.40e-02  -5.50e-04   2.16e-02 1.006
## 1887   -3.26e-04  -2.19e-04  -3.81e-04   -1.51e-04  -3.38e-04  -1.01e-03 1.009
## 1888    9.21e-02  -4.03e-03   2.23e-02    2.98e-02   1.16e-02   1.04e-01 1.022
## 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
```

```
## 1894    5.68e-06  -9.10e-06   8.54e-06  -2.44e-07   1.49e-05   3.93e-05 1.006
## 1895   -1.93e-03   1.61e-03  -3.88e-03  -5.36e-03   1.93e-03   7.27e-03 1.006
## 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   -1.39e-02  -5.02e-03   2.94e-03  -7.19e-04  -8.87e-04  -1.80e-02 1.010
## 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    1.27e-02   1.74e-02  -2.82e-03  -3.43e-02   1.26e-02   7.66e-02 0.998
## 1903   -9.01e-03  -2.62e-03   1.11e-02  -1.87e-02   9.90e-03   3.29e-02 1.004
## 1904   -2.22e-02   2.73e-03  -5.72e-03   2.75e-02   1.75e-02  -1.09e-01 0.999
## 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   -1.45e-02  -3.69e-02   2.02e-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
## 1916    1.49e-02  -2.48e-02   3.46e-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
## 1919   -2.00e-03   5.63e-03  -2.21e-03   7.03e-03   3.46e-03  -1.59e-02 1.008
## 1920    1.19e-02  -1.86e-02   3.67e-02   1.21e-02   1.19e-02   4.84e-02 1.001
## 1921    5.74e-03  -2.16e-02   2.12e-02   9.20e-03  -1.35e-02  -5.58e-02 1.003
## 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
## 1926    9.89e-03   2.02e-02  -1.54e-02  -9.05e-03   1.53e-02   4.99e-02 1.003
## 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
## 1931   -7.30e-04   4.17e-03  -2.06e-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
## 1936   -1.96e-02   6.80e-03  -3.03e-02  -3.14e-02   4.97e-03   5.19e-02 1.002
## 1937   -1.16e-03   7.42e-03  -3.31e-03  -5.85e-03  -2.36e-03   1.40e-02 1.006
## 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   7.19e-05  -1.01e-03  -1.95e-02   7.45e-03   2.94e-02 1.005
## 1941    8.89e-04   2.28e-03  -5.97e-04   3.17e-03  -1.09e-03  -5.82e-03 1.009
## 1942    1.08e-01   1.70e-01  -1.13e-01   2.99e-01   2.29e-01  -5.88e-01 0.953
## 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
```

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## 1948   -2.51e-02    4.35e-03 -2.95e-02   -1.77e-02 -2.23e-02 -6.66e-02 1.006
## 1949    2.34e-02   -1.30e-02 -1.29e-02   -3.53e-02  7.07e-03  6.32e-02 1.001
## 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
## 1957   -6.69e-04    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   -1.21e-02   -6.22e-03 -4.30e-03   -2.76e-02  1.26e-02  3.83e-02 1.005
## 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
## 1965    3.24e-02   -6.32e-02  9.94e-02    2.21e-01  7.45e-02 -3.64e-01 0.990
## 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
## 1970   -5.44e-04    6.36e-04  8.70e-04    4.19e-03 -2.21e-04 -8.07e-03 1.006
## 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
## 1973   -1.12e-02   -2.31e-02  1.11e-02   -3.96e-02  6.08e-03  7.36e-02 1.005
## 1974   -1.14e-02   -6.75e-03  1.76e-03    1.16e-03 -3.97e-03 -1.77e-02 1.008
## 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    2.05e-03    5.15e-03  4.64e-03    1.20e-02 -7.08e-03 -2.94e-02 1.007
## 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   -6.68e-03    5.86e-03 -1.19e-02   -1.22e-02  8.39e-04  2.33e-02 1.009
## 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
## 1988   -3.31e-05   -6.36e-05 -9.89e-05   -3.20e-05  5.33e-05  2.22e-04 1.007
## 1989   -1.80e-02    2.40e-03 -4.45e-02   -3.81e-02  2.00e-02  8.36e-02 0.996
## 1990    1.54e-03   -2.08e-03 -2.35e-03    6.14e-04 -3.05e-03 -9.13e-03 1.005
## 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    2.09e-03   -4.18e-03  1.20e-02    1.22e-03 -1.46e-03 -1.49e-02 1.007
## 1995   -3.65e-03    4.63e-04  2.86e-03    5.29e-03 -4.79e-02  6.00e-02 1.005
## 1996    4.35e-06    2.50e-05 -5.27e-06    1.11e-04  2.34e-04 -3.33e-04 1.009
## 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   -5.58e-03    5.10e-03 -1.49e-02   -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
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## 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   1.33e-02   2.80e-02  -4.38e-02  -9.71e-03  -1.91e-02  -7.41e-02 0.989
## 2011  -9.94e-03   3.15e-02   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  -6.75e-03  -6.89e-03   1.02e-02  -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
## 2017  -4.84e-03   4.01e-03   4.49e-03  -3.76e-03   6.89e-04   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   1.62e-03   1.24e-03   1.13e-03   2.87e-03   8.73e-03  -1.47e-02 1.009
## 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
## 2028  -1.67e-03   1.98e-03   3.37e-03   3.59e-03  -7.12e-04   8.41e-03 1.005
## 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
## 2044  -2.63e-03  -4.47e-03   1.07e-02   1.64e-03   9.65e-03   2.88e-02 1.004
## 2045   2.89e-03   5.02e-03   1.64e-03   4.60e-04   2.99e-03  -1.58e-02 1.006
## 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   3.23e-03  -2.23e-02   2.25e-02  -5.26e-04   6.87e-03   3.73e-02 1.004
## 2055   1.15e-03   2.89e-03   4.87e-03   9.87e-03  -2.81e-03  -1.28e-02 1.006
```

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## 2056    8.55e-03    1.23e-02 -1.46e-02    1.53e-04    5.17e-02 -6.59e-02 1.004
## 2057   -1.47e-02   -8.21e-03 -2.13e-03   -2.31e-02    8.28e-03    4.07e-02 1.002
## 2058    6.36e-04   -1.53e-03 -2.07e-03   -4.19e-04   -5.22e-05 -5.28e-03 1.005
## 2059   -5.07e-03    1.53e-02 -1.78e-02   -4.72e-03   -3.34e-02    5.56e-02 1.006
## 2060    1.68e-03    4.31e-03 -1.21e-03   -1.99e-02   -4.22e-02    8.01e-02 1.004
## 2061    1.16e-02   -2.60e-02 -4.56e-03    1.96e-02   -1.03e-02 -4.96e-02 1.003
## 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   -6.30e-03   -3.02e-02 -2.57e-03   -1.44e-03    1.88e-02    4.94e-02 1.010
## 2065    8.25e-03    1.77e-02    6.31e-02    1.07e-02   -8.54e-03 -9.19e-02 0.990
## 2066    1.39e-01   -1.33e-01    9.37e-02    2.27e-01   -1.34e-01 -4.07e-01 0.979
## 2067    4.39e-02   -1.91e-02    5.72e-02    1.07e-01   -4.45e-02 -1.48e-01 1.002
## 2068    1.16e-04   -2.04e-05 -4.87e-04   -1.50e-04   -1.88e-05 -6.38e-04 1.009
## 2069    3.61e-03    3.15e-02 -1.15e-02    1.67e-02   -4.70e-03 -8.69e-02 0.993
## 2070    5.07e-03    1.32e-02 -3.54e-03    5.24e-03    6.10e-04 -2.13e-02 1.004
## 2071    2.72e-02   -2.88e-02    3.03e-02    5.19e-02   -3.05e-02 -1.02e-01 0.994
## 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    8.77e-03   -2.19e-03    3.33e-03    5.10e-02   -1.38e-03 -8.50e-02 0.990
## 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    1.18e-02    6.65e-04    2.34e-03   -6.43e-04    2.87e-02 1.004
## 2083    3.25e-05    1.09e-03 -1.50e-03   -9.07e-04    2.79e-04    2.34e-03 1.010
## 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   -1.24e-03    4.13e-04    4.80e-03   -1.61e-03 -4.00e-02 1.034
## 2088    1.14e-04   -8.75e-04 -2.09e-04    4.49e-04   -1.56e-04    2.02e-03 1.006
## 2089   -4.69e-03   -1.73e-02    8.30e-03   -7.02e-03   -2.83e-03 -4.09e-02 1.007
## 2090   -3.87e-02   -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
## 2092    1.54e-05   -5.15e-04 -5.01e-04    3.99e-04   -9.21e-04    2.85e-03 1.006
## 2093    1.02e-03   -1.91e-03    1.52e-04    1.43e-03   -1.76e-04    4.21e-03 1.006
## 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
## 2097    5.76e-04    7.40e-03 -4.87e-03   -3.54e-03   -2.32e-03 -1.23e-02 1.005
## 2098   -7.52e-03   -8.06e-03    7.41e-03    1.76e-03    5.33e-03 -2.36e-02 1.007
## 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   -1.71e-03    5.33e-03    3.91e-03   -2.77e-07   -2.42e-04 -1.22e-02 1.005
## 2103   -1.27e-03    8.06e-03    7.02e-04   -1.23e-03   -2.34e-05 -1.61e-02 1.005
## 2104   -2.53e-04    6.33e-04 -9.91e-04   -6.21e-04   -1.85e-04 -2.67e-03 1.006
## 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    5.68e-03    7.61e-04    7.72e-03    2.27e-02   -8.24e-04 -2.67e-02 1.006
## 2109    2.16e-03   -3.05e-04 -1.83e-03   -8.01e-04    9.82e-04    4.15e-03 1.006
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## 2110   -6.79e-04  -1.05e-03   1.88e-03    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
## 2113   -9.08e-03  -1.84e-02   1.54e-02    1.10e-02  -1.69e-02  -4.10e-02 1.004
## 2114    2.35e-03  -2.46e-02   3.62e-02    2.80e-02  -1.49e-02  -5.15e-02 1.005
## 2115   -1.10e-03  -1.86e-03   3.44e-03    3.43e-03  -5.06e-03  -1.55e-02 1.006
## 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    5.46e-03   2.08e-02   1.19e-02    2.08e-02   1.05e-03  -3.59e-02 1.004
## 2120   -2.65e-03   1.31e-03  -5.02e-04    1.66e-03  -5.01e-03  -1.34e-02 1.006
## 2121   -2.35e-03  -7.40e-03  -1.77e-03    1.19e-04   1.15e-03  -1.91e-02 1.005
## 2122    3.20e-03  -4.65e-03   1.68e-03   -2.48e-03   4.66e-03   1.57e-02 1.005
## 2123    7.22e-03  -1.97e-02   1.35e-02   -3.38e-03   3.05e-03  -3.82e-02 1.005
## 2124    1.09e-04  -1.22e-03  -2.55e-03   -3.45e-03   7.13e-04   7.01e-03 1.006
## 2125   -1.07e-06  -2.06e-03   2.04e-03    5.98e-04  -2.10e-03  -5.36e-03 1.007
## 2126    2.91e-03   1.54e-03  -1.52e-03   -5.10e-04   1.98e-03   8.02e-03 1.005
## 2127   -1.25e-02  -1.61e-02   1.46e-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  -2.32e-02  -1.04e-03    2.03e-02  -2.67e-02  -8.88e-02 1.000
## 2131   -2.66e-04   3.04e-04  -7.83e-04   -3.55e-04   9.28e-04   1.98e-03 1.006
## 2132    9.92e-05  -4.80e-03  -4.93e-03   -5.07e-03  -1.82e-02   2.52e-02 1.007
## 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
## 2136   -1.08e-03   1.30e-03   2.54e-03    3.56e-03   5.54e-04  -5.48e-03 1.006
## 2137    1.25e-03  -3.42e-03  -8.00e-03   -2.67e-03  -7.25e-03  -2.67e-02 1.003
## 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
## 2142    2.51e-04   1.20e-03  -1.03e-03   -1.00e-03   5.69e-04   3.75e-03 1.006
## 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
## 2147   -9.05e-03  -3.92e-03  -2.79e-03   -1.02e-02  -1.56e-02  -2.73e-02 1.007
## 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
## 2152   -6.75e-03  -1.35e-04   5.45e-03    1.78e-02  -1.08e-03  -3.78e-02 0.999
## 2153    1.65e-03  -2.28e-03   6.12e-03   -2.87e-03   1.00e-02  -2.16e-02 1.010
## 2154    7.65e-04   2.45e-02  -5.37e-03    1.46e-02   1.24e-02   5.68e-02 1.006
## 2155    7.32e-03   1.23e-02  -1.21e-02   -7.28e-03  -5.96e-02   9.65e-02 1.001
## 2156   -1.02e-02   4.63e-03   2.27e-02   -3.60e-04   2.08e-02   5.03e-02 1.001
## 2157   -2.47e-03   8.08e-04  -6.71e-02    2.57e-02   8.63e-02  -2.03e-01 0.988
## 2158   -6.14e-04  -6.82e-04  -1.78e-03    6.09e-04   7.81e-04   1.50e-02 1.005
## 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
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## 2164    4.22e-03    9.43e-03   4.65e-04    7.11e-03 -3.18e-02   8.42e-02 1.006
## 2165    6.38e-03   -4.84e-02   5.10e-03   -4.79e-03 -4.82e-03   6.70e-02 0.999
## 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
## 2174   -1.78e-02    5.23e-02  -5.98e-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    7.16e-04   -8.87e-03   8.64e-03    7.79e-03  6.49e-03   2.06e-02 1.003
## 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
## 2184   -1.15e-02    3.07e-02  -4.20e-04    1.79e-02 -3.56e-03   5.77e-02 0.999
## 2185    3.32e-03   -5.01e-03   2.76e-02   -2.81e-03 -1.02e-03   4.39e-02 0.999
## 2186   -6.92e-04   -6.67e-04   1.24e-03    5.81e-04 -4.92e-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
## 2190   -6.83e-03   -3.81e-05   8.90e-04    2.55e-03 -1.39e-02   3.79e-02 1.003
## 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
## 2196    1.66e-02   -3.09e-04   3.07e-02    5.61e-03  3.63e-03   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
## 2199    1.67e-03    1.11e-02  -4.60e-03    2.46e-03 -3.71e-03  -2.18e-02 1.003
## 2200   -2.36e-03   -5.42e-03   1.19e-02    4.40e-03  4.91e-03   2.37e-02 1.004
## 2201   -2.69e-04    3.14e-04   3.15e-04    4.25e-04 -3.36e-04   1.58e-03 1.005
## 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
## 2204    2.55e-02   -9.82e-03  -1.22e-03    6.38e-02  5.74e-03  -7.89e-02 1.025
## 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
## 2207   -5.97e-03   -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    5.36e-04  2.16e-03   1.20e-02 1.005
## 2209    6.11e-03   -3.36e-02   6.55e-03    3.52e-03  1.21e-02   4.71e-02 1.004
## 2210   -3.95e-03    5.84e-03  -7.06e-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
## 2212   -5.54e-04   -2.15e-04   2.23e-03    1.47e-03  7.34e-04   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
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## 2218    3.06e-04    6.59e-04 -8.17e-04  -1.38e-03 -6.12e-04  7.87e-03 1.006
## 2219   -2.22e-03    1.83e-03  3.54e-03   5.30e-04  7.21e-03  2.03e-02 1.003
## 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   -1.39e-04   -2.39e-04  5.95e-04   1.80e-05  8.41e-05  1.29e-03 1.005
## 2227   -1.03e-02   -5.54e-03  3.67e-04   5.24e-03 -1.72e-03  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   -5.81e-05   -7.43e-04 -3.11e-05   2.68e-04  3.67e-04  1.70e-03 1.005
## 2232   -8.65e-04   -3.10e-03  2.77e-02   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   -1.30e-02    9.40e-03  3.48e-02  -5.31e-03  1.77e-02  7.73e-02 0.992
## 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
## 2243   -7.81e-04   -2.67e-02  5.55e-03  -7.21e-03 -3.50e-04  4.08e-02 1.002
## 2244   -3.48e-03   -1.15e-02 -8.27e-03  -5.18e-03  7.70e-03  2.91e-02 1.004
## 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    1.09e-03   -8.37e-04 -5.64e-04  -1.02e-03  9.62e-04 -5.74e-03 1.005
## 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
## 2255    3.90e-03   -5.27e-03  9.03e-03  -4.69e-03 -6.53e-04 -3.43e-02 1.000
## 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
## 2258    9.24e-04   -2.40e-03 -3.14e-03  -4.77e-03  1.89e-03 -9.22e-03 1.006
## 2259   -2.46e-04    3.24e-03  3.93e-03  -1.08e-03  4.01e-04 -9.45e-03 1.006
## 2260   -1.62e-03   -4.27e-03  8.74e-04   2.93e-03 -2.31e-03  1.06e-02 1.005
## 2261    4.79e-03   -2.08e-02  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    2.27e-03   -7.31e-03 -6.13e-03  -1.26e-02  2.72e-03 -2.18e-02 1.005
## 2265   -1.45e-03    1.04e-03 -2.23e-03  -5.99e-03 -7.25e-04 -1.67e-02 1.005
## 2266   -7.71e-04   -6.99e-03  5.58e-03   1.22e-02 -4.49e-03  2.34e-02 1.005
## 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
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```
## 2272    3.22e-03   -1.70e-02   3.11e-02    9.38e-03  -9.34e-05   3.82e-02 1.005
## 2273   -3.10e-04    1.59e-03   2.81e-04   -2.56e-04   6.23e-04  -4.02e-03 1.005
## 2274    2.69e-04    6.29e-04  -2.21e-04   -8.06e-04   4.42e-04  -3.75e-03 1.005
## 2275    8.53e-04   -1.13e-02   5.71e-03    9.09e-03  -9.55e-04   2.28e-02 1.004
## 2276   -9.59e-03   -4.43e-03  -5.94e-03   -9.63e-04   6.15e-03  -3.73e-02 1.000
## 2277    8.64e-03   -1.33e-02  -1.15e-02   -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    1.23e-03   -2.29e-03   1.57e-03   -7.37e-03   4.12e-03  -1.83e-02 1.005
## 2281   -1.65e-03    1.50e-02  -3.31e-03   -1.21e-02  -4.44e-03  -3.42e-02 1.002
## 2282   -4.10e-03   -6.09e-03   2.00e-02    3.85e-03   1.12e-02  -5.34e-02 1.003
## 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    1.16e-02    1.06e-02   1.14e-02    8.89e-03  -1.81e-02   3.92e-02 1.009
## 2286    7.53e-03    1.67e-02   9.74e-03    7.07e-03   6.13e-02  -1.36e-01 1.004
## 2287    1.87e-02   -4.05e-04  -5.04e-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
## 2289   -1.03e-03   -9.94e-05   5.72e-04   -4.32e-04   2.69e-03   4.50e-03 1.006
## 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   -1.29e-03  -2.53e-03   3.49e-03 1.008
## 2292   -6.51e-05   -4.29e-04   8.13e-04    4.21e-04  -1.93e-04  -1.09e-03 1.014
## 2293   -1.47e-04   -4.57e-04   5.46e-04    2.16e-04  -6.51e-04   1.44e-03 1.010
## 2294    4.01e-03    5.27e-03  -4.17e-03    8.64e-04  -5.48e-03  -1.90e-02 1.005
## 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
## 2298    6.19e-03   -1.44e-02   1.61e-03   -2.21e-03   3.18e-02  -4.61e-02 1.005
## 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
## 2301    3.57e-03   -3.51e-05  -6.29e-03   -6.41e-04   1.89e-02  -3.56e-02 1.007
## 2302   -1.17e-04   -7.34e-05   2.97e-05    1.85e-04  -3.06e-04   7.90e-04 1.010
## 2303    1.23e-02   -1.84e-02  -9.17e-03   -2.05e-02  -4.05e-02  -6.92e-02 1.007
## 2304   -8.68e-04    4.45e-03  -1.96e-03   -3.70e-03   5.47e-03   1.01e-02 1.007
## 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
## 2307   -9.34e-04   -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    1.23e-03   -6.90e-03  -7.29e-03   -8.98e-03   1.13e-02  -3.26e-02 1.009
## 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
## 2314   -1.78e-02    1.21e-02   1.36e-02    3.11e-03   9.01e-04   8.90e-02 1.112
## 2315   -4.89e-02    4.06e-02   3.62e-02    1.11e-02   9.90e-03   2.43e-01 1.078
## 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
## 2318    2.36e-02    5.58e-02  -9.10e-02    9.58e-02  -3.09e-02  -2.47e-01 0.966
## 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   -4.15e-03   -1.67e-02   3.36e-02    3.08e-02  -1.69e-02  -9.01e-02 1.001
## 2325    2.99e-03    2.31e-03  -1.26e-02    4.31e-03  -5.87e-03  -2.48e-02 1.005
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## 2326  -1.86e-02  -2.23e-02 -2.03e-02  -2.18e-02 -3.19e-03 -7.09e-02 0.998
## 2327   1.13e-02  -2.84e-03 -1.44e-02   2.11e-02 -7.99e-03 -4.30e-02 1.006
## 2328   3.30e-02  -1.39e-03 -1.34e-02   1.58e-02 -1.31e-02 -1.04e-01 0.982
## 2329  -7.51e-03  -1.17e-02 -1.42e-02   1.20e-02 -1.04e-02 -7.02e-02 0.997
## 2330  -6.40e-03   4.49e-02 -1.94e-02   1.30e-02 -5.00e-03  7.42e-02 1.001
## 2331  -1.06e-03  -1.95e-02 -6.54e-03   6.39e-03 -2.28e-03 -6.06e-02 1.004
## 2332   1.76e-03  -4.24e-03  1.35e-03   7.65e-03 -8.79e-03 -2.70e-02 1.003
## 2333   1.62e-03  -2.12e-02  9.32e-03   7.28e-03 -9.01e-03 -4.19e-02 1.006
## 2334  -1.70e-03  -4.23e-03 -2.15e-03   1.13e-04  2.94e-04 -1.15e-02 1.007
## 2335   1.85e-02  -3.14e-02 -3.48e-02  -1.00e-02  6.79e-03 -8.25e-02 1.006
## 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   4.91e-03  -2.83e-03 -1.31e-02  -1.74e-03 -6.10e-03 -2.50e-02 1.006
## 2340   4.33e-03  -4.78e-02 -8.97e-03  -5.73e-03  7.06e-03 -8.24e-02 1.003
## 2341   5.61e-03  -1.46e-02 -1.01e-02   7.14e-02 -1.68e-03 -1.09e-01 0.999
## 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   1.29e-02 -1.18e-02   5.30e-02 -2.78e-03 -7.53e-02 1.007
## 2346  -2.61e-02  -5.22e-02 -5.17e-04   6.42e-02  2.75e-04 -1.19e-01 1.000
## 2347   1.90e-02  -1.92e-01  8.99e-02  -8.19e-02 -5.78e-02 -2.70e-01 1.015
## 2348  -1.48e-03  -2.89e-03  7.51e-04   3.13e-03 -7.05e-04 -6.64e-03 1.008
## 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  -1.18e-02  -4.87e-03 -2.39e-02   7.36e-02 -4.92e-02 -1.38e-01 0.989
## 2352   7.43e-03  -4.24e-03 -7.60e-03   2.55e-02 -1.82e-04 -4.97e-02 1.003
## 2353  -8.84e-02   1.33e-02 -6.63e-02  -7.03e-02 -4.76e-03 -1.57e-01 0.986
## 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   8.91e-03  1.49e-03   5.25e-02 -1.89e-03 -9.25e-02 0.994
## 2358   6.99e-04   2.38e-03  1.54e-02   3.01e-02 -8.30e-03 -4.01e-02 1.005
## 2359   1.27e-03   4.25e-03 -1.52e-03  -5.43e-03 -6.42e-04 -1.45e-02 1.004
## 2360   6.61e-03   1.15e-02 -3.37e-03  -2.64e-02  1.77e-02 -7.01e-02 1.005
## 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   5.57e-03   3.82e-03 -2.97e-03  -1.73e-02 -9.37e-04 -4.48e-02 1.002
## 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
## 2366   2.21e-03  -3.36e-03  1.72e-03   1.44e-03  2.66e-04  1.39e-02 1.005
## 2367   1.60e-02  -2.27e-02  2.62e-02   2.19e-02 -2.96e-03  4.65e-02 1.003
## 2368   1.06e-02   9.35e-03  1.09e-02  -1.60e-02 -1.25e-02 -7.10e-02 1.011
## 2369  -1.34e-04   2.45e-03 -2.74e-03  -1.43e-03 -7.85e-05 -5.12e-03 1.007
## 2370   3.38e-04   2.25e-03 -4.50e-03   6.74e-03  2.48e-03  2.99e-02 1.001
## 2371   1.71e-04  -2.56e-04 -3.61e-04   1.12e-04 -1.51e-04 -3.69e-03 1.005
## 2372   2.88e-04  -1.61e-03  7.98e-04  -2.49e-03  1.29e-03 -6.25e-03 1.005
## 2373   7.89e-04   2.75e-03  8.60e-03  -3.31e-03 -4.53e-03 -1.86e-02 1.009
## 2374   9.39e-03  -5.27e-03 -1.42e-03   1.27e-04  1.53e-03  1.74e-02 1.008
## 2375  -8.70e-07  -1.25e-03  9.42e-04  -1.50e-04 -6.08e-04 -4.65e-03 1.005
## 2376  -2.51e-03   1.78e-03  2.61e-03   9.12e-03 -2.12e-03  3.08e-02 1.001
## 2377  -1.97e-03   2.54e-03  2.82e-03  -8.44e-04  5.95e-04 -8.69e-03 1.008
## 2378   1.47e-03  -3.86e-03  6.58e-03   4.05e-03 -1.71e-03  1.26e-02 1.006
## 2379   1.17e-03   1.07e-03 -8.95e-04   3.93e-03  1.31e-03 -6.38e-03 1.006
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## 2380    1.08e-03  -2.90e-03   1.22e-03    1.39e-04   1.49e-03 -1.04e-02 1.010
## 2381    4.75e-04   1.57e-03  -2.03e-03   -4.05e-03  -1.42e-03 -1.03e-02 1.005
## 2382    1.75e-04  -9.78e-04  -5.13e-03   -1.21e-03  -1.22e-03  1.20e-02 1.006
## 2383    2.15e-02  -9.23e-02   8.83e-03    1.64e-02   2.01e-02 -1.40e-01 1.001
## 2384    5.73e-05   1.78e-04  -6.79e-05   -8.56e-05   2.39e-04  4.64e-04 1.007
## 2385    9.50e-03   1.58e-02   8.87e-03    9.16e-03  -4.68e-03 -4.19e-02 1.007
## 2386   -2.07e-02  -4.43e-02   5.36e-03    4.32e-02  -3.77e-02 -1.10e-01 0.991
## 2387   -7.88e-03   1.82e-02   6.25e-03   -6.67e-03   1.14e-02  3.41e-02 1.004
## 2388   -6.50e-05   5.76e-03  -3.91e-03    6.78e-03  -1.13e-02 -2.63e-02 1.003
## 2389   -5.39e-05   1.51e-04   1.49e-04   -3.56e-04   1.45e-04  7.54e-04 1.006
## 2390    4.01e-04   5.51e-03  -4.57e-03   -9.61e-03   1.38e-02  2.39e-02 1.006
## 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    1.31e-02  -8.80e-04 -5.00e-02 1.010
## 2393   -2.98e-04  -7.42e-04   2.81e-04    1.12e-03  -1.90e-04 -1.88e-03 1.006
## 2394   -2.08e-02  -2.40e-02   1.98e-03    2.62e-02  -8.49e-03 -6.55e-02 0.998
## 2395    1.40e-02   2.30e-02  -7.51e-02   -9.87e-02   2.23e-02 -1.94e-01 1.004
## 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    2.46e-03  -5.65e-03   2.11e-04   -2.09e-04  -6.95e-04 -1.24e-02 1.008
## 2401   -5.80e-05   2.14e-04  -9.92e-06    1.18e-04   1.15e-04  5.21e-04 1.006
## 2402   -2.01e-03   1.52e-03   6.36e-04   -8.27e-04   3.31e-03  6.57e-03 1.007
## 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
## 2406    3.96e-04   2.41e-04  -7.78e-05    5.98e-04   1.02e-03 -1.99e-03 1.010
## 2407   -4.07e-03  -1.66e-02   4.74e-03    1.20e-03  -1.40e-02  4.25e-02 1.008
## 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    1.80e-02  -3.28e-03  -2.32e-02   -1.37e-02  -3.57e-02 -7.38e-02 1.002
## 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
## 2417    9.18e-03  -1.87e-03   1.52e-02    1.10e-02  -1.60e-02 -4.37e-02 1.005
## 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
## 2422    1.35e-02   1.70e-02  -9.49e-03   -1.88e-02   1.95e-02  5.96e-02 0.999
## 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
## 2426    2.11e-02  -3.18e-03  -5.49e-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    8.26e-03  -3.64e-03  -2.01e-03   -4.97e-04  -7.21e-03 -2.58e-02 1.006
## 2433    1.38e-02  -4.99e-02   2.38e-02    5.47e-03   8.91e-03 -6.41e-02 1.005
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## 2434    4.60e-03  -1.83e-02 -2.28e-05   8.14e-03 -1.17e-02 -4.91e-02 0.998
## 2435    3.94e-03  -1.32e-02  1.10e-03   2.52e-03  2.49e-03 -2.40e-02 1.007
## 2436    1.26e-02   4.70e-02 -8.65e-02  -3.61e-02  3.55e-02  1.35e-01 0.996
## 2437    8.96e-05  -2.21e-02  3.19e-03   7.17e-03 -1.31e-03 -3.33e-02 1.005
## 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   -5.18e-03  -5.63e-03  8.53e-05  -7.33e-03 -3.65e-02  1.03e-01 1.003
## 2443   -3.32e-03  -3.27e-03  1.05e-02   4.29e-02 -2.12e-02 -6.60e-02 1.004
## 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    8.71e-03  -8.45e-03  2.33e-02   2.25e-02 -1.05e-02 -4.20e-02 1.007
## 2448   -5.53e-03   2.95e-03  1.20e-03  -2.19e-03 -1.58e-02  2.52e-02 1.007
## 2449    4.42e-03  -1.11e-02  1.07e-02   4.85e-03 -1.80e-02 -3.24e-02 1.008
## 2450    4.97e-03  -9.95e-03 -2.19e-03  -9.97e-04 -2.52e-02 -4.09e-02 1.005
## 2451    8.27e-04   4.08e-02 -1.74e-02  -3.62e-03  2.30e-02  5.47e-02 1.002
## 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    1.51e-04   4.68e-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  -1.52e-02 -3.11e-03 -5.34e-02 1.007
## 2456    1.56e-06  -9.99e-06 -1.13e-05   7.71e-06 -9.83e-06  3.96e-05 1.006
## 2457   -3.11e-03  -7.30e-03  3.75e-03   1.34e-02 -1.91e-03  2.62e-02 1.003
## 2458    2.41e-03  -9.32e-03  2.25e-03  -4.85e-03  5.84e-03 -1.84e-02 1.007
## 2459    9.11e-04  -7.06e-03 -5.13e-03  -1.07e-02 -7.38e-03 -2.62e-02 1.005
## 2460   -6.47e-05   7.57e-04 -8.25e-04  -1.30e-03  3.41e-04 -4.16e-03 1.005
## 2461    5.01e-03  -4.82e-03 -1.59e-02  -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   1.20e-02  1.15e-03 -9.50e-02 0.998
## 2465   -1.39e-02   6.64e-03 -3.46e-02  -3.22e-02 -6.59e-04 -4.96e-02 1.003
## 2466   -1.04e-03  -3.09e-03 -4.21e-03   2.12e-03 -2.03e-03  1.38e-02 1.004
## 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  -3.26e-03 -8.98e-03  -1.37e-02  8.21e-03 -2.89e-02 1.005
## 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
## 2471    3.89e-03  -6.79e-04 -5.26e-03  -8.05e-03  2.67e-03 -2.76e-02 1.002
## 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
## 2474   -3.45e-04  -7.18e-04  1.66e-03  -4.30e-03  1.13e-03 -1.09e-02 1.005
## 2475    5.39e-04   6.84e-03  4.34e-04  -2.99e-03  1.03e-03 -1.59e-02 1.006
## 2476    1.47e-03   2.85e-04  1.21e-02  -7.22e-03  1.04e-02 -4.11e-02 1.001
## 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
## 2480   -4.63e-03  -4.07e-03  1.47e-02  -2.08e-02  9.45e-03 -5.82e-02 0.997
## 2481    5.37e-04  -2.08e-03 -5.29e-03  -1.55e-02 -2.79e-03 -3.22e-02 1.003
## 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
```

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## 2488    2.09e-04    1.43e-04   2.45e-04    6.89e-04 -2.63e-04   1.17e-03 1.006
## 2489   -4.26e-03    5.05e-03  -3.18e-04   -1.01e-02   4.79e-03  -3.73e-02 1.002
## 2490    4.81e-04   -8.94e-04  -1.10e-03    1.16e-03 -7.93e-04   4.24e-03 1.006
## 2491    8.80e-04   -7.70e-03  -8.11e-04    3.72e-03 -8.52e-03   2.37e-02 1.004
## 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   -3.67e-03   -1.15e-02   7.11e-03    7.28e-03 -2.96e-03   2.50e-02 1.003
## 2497    5.67e-04    1.82e-04  -1.07e-03   -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   -3.44e-02    9.97e-03  -7.23e-02   -2.62e-02   3.98e-03  -1.05e-01 0.996
## 2502   -3.56e-05   -1.28e-04   1.55e-04   -1.38e-04 -4.87e-05  -4.87e-04 1.005
## 2503    9.17e-03    1.34e-04  -5.78e-03   -1.48e-02   8.38e-03  -4.47e-02 1.003
## 2504   -1.15e-03   -5.50e-03   3.10e-03   -7.54e-03   5.06e-04  -1.88e-02 1.004
## 2505   -1.81e-03   -1.74e-02   4.17e-03    5.85e-03 -5.92e-03   2.53e-02 1.007
## 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    1.08e-03   -7.70e-03  -1.85e-03    9.72e-03 -3.00e-03   2.74e-02 1.003
## 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
## 2513    3.85e-03   -1.67e-03   4.55e-03    7.07e-03 -8.73e-04   1.15e-02 1.005
## 2514    2.38e-04    4.04e-03  -8.55e-03    2.16e-03 -8.27e-04   1.38e-02 1.006
## 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
## 2517   -1.31e-04   -9.79e-03  -1.17e-02    9.44e-03   4.29e-03   2.91e-02 1.005
## 2518    4.42e-04   -1.58e-03  -6.64e-05   -7.05e-04   8.66e-04  -3.20e-03 1.008
## 2519   -2.30e-03    5.26e-03   3.17e-03    6.42e-03 -3.85e-03   1.49e-02 1.007
## 2520    5.08e-04   -1.70e-03   1.14e-02    1.31e-02 -5.01e-03   2.29e-02 1.005
## 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
## 2523    2.89e-03   -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   -5.97e-03   -2.38e-02   9.65e-03   -4.44e-03 -1.85e-02  -5.50e-02 0.997
## 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
## 2530    1.94e-03   -3.19e-03  -6.57e-04   -4.11e-03   3.69e-03  -1.22e-02 1.007
## 2531   -1.30e-03    2.18e-02  -2.12e-02    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   -1.02e-03    4.43e-03  -6.75e-04    3.52e-03 -4.26e-03   1.30e-02 1.007
## 2535   -5.07e-04   -3.78e-03  -7.12e-03   -1.15e-02   3.19e-03  -2.90e-02 1.002
## 2536    3.40e-04   -5.35e-04   2.12e-04    6.50e-04 -1.72e-03   5.14e-03 1.009
## 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   -1.06e-02    1.12e-02   9.57e-03    4.17e-03 -4.04e-02   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
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## 2542    4.73e-03    5.13e-04 -1.24e-02  -1.77e-02 -3.70e-02   5.40e-02 1.006
## 2543   -1.13e-02    2.83e-02  2.30e-03   8.67e-03  1.41e-02   4.90e-02 1.006
## 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    6.58e-03   -1.87e-02  1.13e-02   7.45e-03 -2.15e-02  -4.63e-02 1.007
## 2551   -9.53e-05    2.76e-05 -4.07e-06   4.36e-05 -3.74e-04   5.41e-04 1.007
## 2552   -2.08e-02    5.81e-03 -1.13e-02  -1.17e-02 -1.21e-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    3.29e-03    6.26e-02 -2.08e-02   1.30e-02 -7.77e-02   1.44e-01 0.995
## 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   -1.36e-05   -4.71e-04 -2.29e-04   1.04e-04  3.35e-03  -5.34e-03 1.009
## 2563   -4.61e-03    7.97e-02 -1.06e-03   6.04e-04 -1.11e-01   2.12e-01 0.982
## 2564    8.32e-03   -2.71e-02  4.72e-02   2.99e-02 -4.41e-02   1.77e-01 0.996
## 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    4.12e-03    3.36e-02  6.92e-03   2.26e-02 -1.98e-02   9.56e-02 1.009
## 2568    6.24e-04   -1.50e-02 -6.64e-03  -8.42e-03 -2.62e-02  -5.32e-02 1.007
## 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   4.05e-03  8.43e-03   3.89e-02 1.003
## 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
## 2579    7.45e-03    4.90e-02  2.06e-02   4.66e-02 -7.23e-03   1.42e-01 1.014
## 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
## 2584    5.84e-03    2.53e-02 -1.66e-02  -9.82e-03 -3.42e-02   6.18e-02 1.007
## 2585    7.95e-03    1.63e-02  5.49e-03   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   -3.24e-03    1.33e-02  4.80e-03   7.29e-03  1.20e-02   2.67e-02 1.005
## 2589   -1.01e-03   -4.20e-03 -1.82e-02  -8.60e-03  2.52e-03  -4.66e-02 1.004
## 2590   -1.11e-02    1.38e-02  2.86e-02  -3.78e-02  3.74e-02   1.46e-01 0.978
## 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    9.01e-03    1.67e-02  2.53e-02   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    6.44e-03    1.74e-02 -1.54e-04  1.82e-02 -4.40e-02  8.44e-02 1.004
## 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    3.37e-03 -5.34e-03  3.29e-03 -1.97e-02  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    6.13e-03    2.01e-02 -2.44e-02  2.35e-03 -4.50e-02  7.39e-02 1.006
## 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 -7.96e-04  7.08e-04 -3.93e-03 1.006
## 2605   -4.83e-03   -1.96e-02 -2.16e-02 -6.64e-03  6.53e-04 -5.02e-02 0.999
## 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  1.75e-02 -2.80e-02 1.008
## 2609   -9.66e-04   -3.22e-04 -1.19e-03  2.42e-03 -1.85e-03 -5.91e-03 1.005
## 2610   -1.47e-02    1.74e-02 -6.41e-02 -5.28e-02  1.51e-02  8.73e-02 0.994
## 2611    6.50e-04    1.32e-02  1.26e-02  2.33e-03  6.66e-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   -2.06e-03 -5.47e-03  1.97e-03  4.04e-03  2.30e-02 1.004
## 2614    1.12e-04    5.09e-04 -4.40e-04  1.88e-04  4.20e-04  1.11e-03 1.006
## 2615   -2.16e-03    5.68e-04  3.66e-04 -9.69e-04  9.71e-03 -1.52e-02 1.008
## 2616   -2.52e-04    1.61e-02  4.33e-03 -1.32e-03  8.74e-03  3.59e-02 1.002
## 2617    2.50e-03    1.11e-02  3.69e-03  1.10e-02 -3.20e-02  7.17e-02 1.007
## 2618    8.33e-03    5.93e-03  9.37e-03  1.31e-02 -1.71e-02  9.31e-02 1.010
## 2619    4.70e-03    2.99e-03 -1.23e-03  3.18e-03 -1.78e-03  1.44e-02 1.005
## 2620   -1.03e-02   -8.41e-03  1.64e-02 -6.60e-03  2.50e-02  5.67e-02 0.998
## 2621   -2.03e-03   -3.49e-03  9.42e-03  4.23e-03  4.62e-03  1.21e-02 1.007
## 2622    6.69e-03   -1.20e-02 -1.66e-04 -3.06e-03 -4.11e-04 -2.44e-02 1.005
## 2623   -1.05e-03   -3.68e-05  8.34e-04 -1.79e-04  9.25e-04  3.01e-03 1.005
## 2624   -7.23e-03   -3.75e-03  1.23e-02 -6.97e-03 -2.63e-02  3.95e-02 1.007
## 2625   -3.95e-03    2.98e-03  8.28e-03 -5.08e-04  3.44e-03  1.41e-02 1.007
## 2626    6.18e-02    4.63e-02 -9.85e-02 -3.12e-02  3.74e-02 -2.76e-01 0.971
## 2627    1.91e-02    1.99e-02 -1.11e-02  2.65e-02 -2.65e-02 -1.05e-01 1.005
## 2628    1.10e-04    1.20e-02  1.01e-03  8.95e-03  1.97e-02 -3.10e-02 1.007
## 2629   -1.24e-03   -6.57e-03  1.37e-02  1.62e-02  1.33e-03 -4.19e-02 1.003
## 2630   -3.66e-04    1.12e-03 -5.24e-04  2.40e-03  6.59e-03 -1.06e-02 1.008
## 2631   -1.09e-02   -3.95e-03 -8.57e-03  3.49e-02  4.13e-02 -7.51e-02 1.006
## 2632   -6.67e-04    1.52e-03 -1.32e-05  4.19e-04 -2.60e-04  2.48e-03 1.007
## 2633    1.48e-02   -1.89e-02 -1.74e-03  4.35e-02  4.93e-02 -9.48e-02 1.005
## 2634    1.61e-03   -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
## 2636    2.42e-02   -3.87e-02  1.37e-02 -1.80e-02  3.97e-02 -1.12e-01 0.997
## 2637   -4.63e-02    1.40e-01 -1.27e-01 -8.47e-02  3.39e-02  2.04e-01 0.961
## 2638    2.49e-05    5.21e-03 -6.71e-03 -5.25e-03 -5.13e-04  1.12e-02 1.006
## 2639    7.55e-04   -6.14e-03  2.42e-04 -6.70e-04 -2.37e-02  4.43e-02 1.008
## 2640    1.58e-02    2.39e-02  5.16e-03  1.78e-02 -1.98e-02 -8.59e-02 1.003
## 2641    8.63e-04    3.29e-03 -5.90e-03 -2.14e-03  1.81e-02 -2.42e-02 1.006
## 2642   -2.70e-03   -6.57e-03 -3.53e-02 -2.15e-02  7.67e-02 -2.08e-01 0.979
## 2643    1.32e-02    1.47e-02  1.51e-02  3.10e-03  3.67e-02 -1.02e-01 1.004
## 2644    1.02e-03   -9.50e-04  6.29e-04  1.85e-03 -3.50e-04 -9.03e-03 1.007
## 2645    8.38e-04   -2.15e-04  2.79e-03  1.34e-04  6.64e-03 -1.50e-02 1.009
## 2646   -1.87e-01   -8.88e-02  1.18e-01  2.49e-01  1.81e-01 -4.55e-01 0.947
## 2647   -1.34e-02    1.97e-02  4.98e-03 -1.35e-02 -5.41e-03  4.71e-02 1.003
## 2648   -8.99e-05    3.95e-05  7.08e-03  2.75e-03 -8.12e-03 -1.63e-02 1.005
## 2649    1.14e-06    1.79e-05  1.66e-04  1.76e-04  7.31e-04 -1.53e-03 1.007
```

```
## 2650    1.99e-02    4.55e-03 -6.67e-03    5.92e-03 -1.88e-02  3.34e-02 1.009
## 2651    5.94e-04   -2.10e-03  3.79e-03    3.80e-03 -4.17e-03 -1.22e-02 1.007
## 2652    7.55e-03   -4.71e-02  1.46e-02   -5.82e-03  7.25e-03 -6.79e-02 1.006
## 2653   -2.05e-04    2.56e-03  2.76e-04    4.63e-03 -1.48e-03 -7.87e-03 1.005
## 2654    9.90e-05    1.56e-03 -3.99e-04   -6.82e-05 -3.97e-03  4.99e-03 1.008
## 2655   -2.27e-02   -6.44e-03  2.92e-02    2.33e-02  3.30e-02  9.57e-02 0.993
## 2656    4.58e-03   -2.68e-03 -1.19e-02   -1.60e-03 -1.32e-02 -2.62e-02 1.006
## 2657    7.83e-02    9.99e-05 -1.89e-02   -6.54e-02 -7.28e-02  1.54e-01 1.002
## 2658    2.83e-03    5.00e-03  1.50e-02    7.65e-03 -2.48e-02  4.71e-02 1.009
## 2659    5.33e-02   -9.96e-02 -3.69e-03    4.40e-02 -1.43e-01 -3.06e-01 0.958
## 2660   -2.50e-04   -1.18e-04 -9.61e-04    7.35e-04  1.44e-03  3.06e-03 1.010
## 2661    2.25e-02   -4.07e-02 -3.94e-03    2.80e-02 -2.12e-02 -7.96e-02 0.990
## 2662   -6.40e-03    9.52e-04  9.91e-03   -7.75e-03 -1.59e-03  2.78e-02 1.006
## 2663   -2.84e-03   -4.75e-03 -1.77e-03   -6.89e-03 -2.02e-02  3.35e-02 1.006
## 2664   -5.05e-03    6.35e-03 -2.09e-02    4.33e-03  1.21e-02  3.47e-02 1.002
## 2665    1.12e-02   -3.21e-03 -4.79e-03    1.96e-02 -2.68e-02 -5.42e-02 1.005
## 2666    2.79e-03    1.05e-03 -3.93e-04   -2.00e-03 -6.76e-03 -1.26e-02 1.008
## 2667    1.49e-03   -3.85e-03  3.19e-03   -2.95e-03 -4.85e-03 -1.26e-02 1.008
## 2668   -2.79e-02    1.52e-02 -1.43e-02   -5.91e-02  2.41e-02  8.61e-02 1.003
## 2669   -2.29e-02   -2.79e-03  2.64e-03    1.54e-02  8.51e-02 -1.59e-01 0.983
## 2670   -1.56e-02    2.97e-02  1.23e-02   -1.82e-04 -3.63e-03  6.20e-02 1.001
## 2671   -3.29e-03    4.23e-03 -1.47e-02    3.22e-03  1.19e-02  3.08e-02 1.013
## 2672    1.38e-03   -1.59e-03 -2.89e-03   -2.59e-03 -6.25e-03 -1.19e-02 1.011
## 2673   -1.79e-02    3.92e-02  2.74e-02    8.00e-04  3.44e-02  8.78e-02 0.995
## 2674    3.57e-03    8.04e-03 -1.01e-01   -2.27e-02  3.18e-02 -3.25e-01 0.977
## 2675   -1.25e-03    2.30e-03 -5.11e-04    1.00e-03  1.95e-03  6.45e-03 1.005
## 2676    3.18e-04   -2.22e-04 -2.23e-04   -5.36e-05  1.02e-04 -1.02e-03 1.007
## 2677    7.90e-05    3.46e-03 -3.37e-03    8.44e-03  1.46e-02 -2.98e-02 1.009
## 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    1.00e-02   -2.19e-02 -8.18e-03   -5.40e-03  1.95e-02 -5.48e-02 1.008
## 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    1.01e-01 -4.86e-03    4.01e-02  1.47e-02  1.54e-01 1.012
## 2683    2.65e-05    9.72e-05 -7.68e-05    8.67e-05  2.22e-04 -2.87e-04 1.009
## 2684    3.29e-03    3.23e-02  4.16e-02   -3.61e-02  4.06e-02 -1.98e-01 1.001
## 2685   -8.81e-05    7.29e-04 -1.47e-04    2.68e-04  3.15e-04  1.05e-03 1.006
## 2686   -8.99e-03    1.20e-02 -3.21e-02    3.18e-02  3.04e-02  9.30e-02 1.004
## 2687    1.60e-03   -1.54e-02  4.93e-03   -3.68e-04 -1.26e-03 -2.29e-02 1.003
## 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
## 2691   -6.79e-05   -9.01e-05  2.51e-03   -5.01e-03  9.51e-03 -1.78e-02 1.009
## 2692   -3.82e-05    1.70e-04  4.26e-05    1.56e-04  2.41e-04  5.02e-04 1.006
## 2693    2.49e-03    6.70e-03 -1.85e-03   -9.55e-05  9.59e-03  1.97e-02 1.005
## 2694   -9.42e-03   -3.35e-03  1.99e-03    1.88e-03  1.12e-02  3.04e-02 1.003
## 2695    1.06e-02   -2.04e-03 -2.00e-02   -1.81e-02  4.38e-02 -9.98e-02 1.007
## 2696    2.85e-02    3.44e-02 -6.65e-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    4.30e-05    8.66e-05 -3.33e-05    1.08e-04 -4.10e-05 -4.37e-04 1.005
## 2699    1.33e-03   -1.07e-02  7.05e-03   -2.04e-02 -5.62e-03 -6.86e-02 1.019
## 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   -7.76e-03   -9.13e-03  8.97e-03   -1.44e-03  8.28e-03  2.93e-02 1.006
```

```
## 2704   -1.80e-03    4.37e-03   4.41e-03    4.70e-03   1.35e-03   1.10e-02 1.005
## 2705   -1.61e-03   -6.34e-03   3.89e-03   -2.33e-03   2.23e-03  -1.21e-02 1.006
## 2706   -1.15e-02    3.45e-03  -4.09e-02   -9.20e-03  -7.61e-03   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    2.99e-04   -1.49e-04   5.00e-04   -2.43e-04  -2.08e-04  -1.39e-03 1.007
## 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   -6.08e-03   7.66e-03  -3.31e-02 1.011
## 2713   -3.63e-03    6.96e-03  -7.54e-03   -4.43e-03   1.45e-02   3.10e-02 1.003
## 2714   -3.22e-01   -1.82e-01   3.60e-01   -2.29e-01  -4.60e-03   1.74e+00 0.965
## 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    2.56e-02   6.09e-02    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   1.85e-01 1.008
## 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    8.33e-02  -3.09e-02    1.54e-01   1.50e-02  -2.12e-01 0.997
## 2721   -1.45e-02   -1.53e-02   1.59e-02   -7.59e-03  -8.28e-03   4.43e-02 1.007
## 2722    9.14e-03    9.81e-03  -1.36e-03    2.40e-02   2.63e-03  -3.25e-02 1.007
## 2723   -2.41e-02   -2.44e-02   2.83e-02   -3.10e-02  -2.55e-03   7.61e-02 1.005
## 2724   -7.74e-02    2.55e-02   5.13e-03   -1.28e-01  -1.97e-02   2.92e-01 1.021
## 2725    3.59e-04   -6.07e-05  -3.39e-04    5.29e-04   1.62e-04  -1.26e-03 1.008
## 2726   -9.77e-02   -8.33e-03   6.93e-02   -6.71e-02   8.41e-02   2.97e-01 0.983
## 2727   -7.16e-02   -1.28e-01   8.93e-02   -1.23e-01  -1.64e-02   3.36e-01 0.973
## 2728   -1.09e-03   -3.05e-03   4.88e-04   -6.58e-04  -8.40e-03   1.18e-02 1.009
## 2729   -9.13e-03    1.81e-03   5.43e-03   -5.84e-03   4.91e-03   2.83e-02 1.024
## 2730   -2.06e-02   -2.23e-02   2.02e-02   -1.08e-02  -6.74e-03   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    1.08e-02  -2.84e-03    4.62e-02  -1.73e-02  -7.37e-02 1.019
## 2734    4.65e-02   -1.13e-02  -1.69e-03   -1.57e-02   3.52e-02  -1.75e-01 1.005
## 2735   -4.95e-04    1.31e-04  -2.23e-04   -5.69e-04  -2.43e-04  -1.06e-03 1.007
## 2736    1.29e-02    6.58e-03   4.23e-02    1.29e-02  -2.69e-02  -1.05e-01 0.996
## 2737   -7.14e-04   -6.27e-04  -1.39e-03   -7.09e-03  -9.73e-03  -2.14e-02 1.009
## 2738    3.74e-04    7.00e-04  -1.28e-05    1.27e-03   8.17e-04   3.60e-03 1.008
## 2739   -2.28e-03    1.74e-02  -3.54e-03    1.19e-02   1.21e-02   3.07e-02 1.004
## 2740   -2.14e-05   -6.71e-03   4.04e-03    5.05e-04  -2.24e-03   1.31e-02 1.010
## 2741   -8.49e-02    1.75e-02  -4.41e-03   -4.76e-02   7.09e-02  -1.79e-01 1.002
## 2742   -1.08e-02    1.21e-02  -1.59e-03   -1.60e-03  -3.97e-03  -2.98e-02 1.003
## 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
## 2745   -2.70e-03    2.02e-03   4.55e-04   -1.08e-03  -7.76e-04  -4.79e-03 1.007
## 2746   -1.26e-02   -4.69e-03  -2.44e-02   -3.32e-02  -1.19e-02  -6.59e-02 1.003
## 2747   -3.18e-02   -6.06e-03   4.02e-03   -9.23e-03  -9.30e-03  -4.45e-02 1.013
## 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    1.46e-03    1.16e-03   6.22e-03    1.91e-03  -8.64e-03  -1.88e-02 1.005
## 2751   -1.08e-03   -4.32e-03   1.23e-02    1.89e-02  -3.24e-02   5.66e-02 1.008
## 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    3.93e-04    4.52e-04  -2.62e-03   -1.40e-03   8.42e-03   1.55e-02 1.004
## 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    4.25e-03   -5.65e-02  1.58e-02   -4.62e-02 -4.72e-02 -1.19e-01 1.008
## 2760    5.91e-03    1.55e-03 -7.62e-03   -1.11e-02  1.85e-02 -4.33e-02 1.007
## 2761   -1.79e-03    9.00e-03  1.86e-04    1.28e-02 -1.71e-02  4.55e-02 1.007
## 2762    1.08e-02    8.20e-04 -2.58e-03    1.17e-02  9.43e-03  2.82e-02 1.005
## 2763   -1.38e-03   -4.30e-03  8.16e-03    6.27e-03 -7.87e-03 -2.31e-02 1.003
## 2764    4.45e-03   -4.36e-03  7.79e-03   -2.84e-03  1.23e-02 -3.27e-02 1.009
## 2765    3.05e-03   -7.08e-03  2.38e-02    4.04e-03 -7.13e-03 -3.41e-02 1.005
## 2766   -6.61e-03   -1.04e-02 -6.00e-03    1.26e-03  1.84e-03  3.46e-02 1.007
## 2767   -1.07e-02   -1.52e-03 -1.39e-03   -8.73e-04 -5.52e-03 -1.80e-02 1.007
## 2768   -4.45e-04    1.23e-04 -7.97e-04   -5.88e-04  9.52e-04  2.57e-03 1.005
## 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
## 2772   -4.57e-03    1.05e-02 -1.13e-02    1.44e-03  2.75e-03  2.45e-02 1.003
## 2773   -4.11e-04    2.74e-03 -8.96e-03   -4.68e-03  3.93e-03 -2.59e-02 1.004
## 2774    3.47e-03    6.77e-03 -1.86e-02   -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
## 2776    2.62e-03   -2.93e-04 -3.76e-02   -4.59e-02 -6.47e-03 -6.93e-02 1.007
## 2777   -5.28e-03   -1.02e-02 -7.25e-03    2.61e-03 -3.00e-03  3.09e-02 1.010
## 2778    6.56e-04    1.13e-03 -3.56e-05   -6.53e-04  3.43e-04 -2.81e-03 1.006
## 2779   -5.94e-04    7.76e-04  2.68e-04    3.22e-04  2.64e-04  2.32e-03 1.006
## 2780   -3.74e-03   -6.31e-03  1.42e-02   -2.47e-03  1.49e-03  2.00e-02 1.008
## 2781    1.02e-02   -7.96e-03 -4.02e-03    4.23e-03 -1.50e-02 -3.70e-02 1.007
## 2782    3.19e-03    1.16e-02 -3.89e-02   -3.49e-02 -4.57e-03 -7.13e-02 0.997
## 2783   -1.12e-03   -3.69e-03 -1.32e-03    3.03e-03  2.31e-03  1.17e-02 1.012
## 2784   -1.84e-03   -8.46e-03  1.41e-03    7.34e-04 -2.72e-03  1.29e-02 1.007
## 2785    2.37e-02   -3.41e-02 -3.33e-02   -5.09e-02  1.05e-02 -1.67e-01 1.018
## 2786   -1.31e-03    2.87e-03  8.07e-04    1.81e-03  6.10e-04  1.53e-02 1.007
## 2787    4.67e-03    2.78e-02 -4.45e-03   -9.02e-03  8.36e-03 -5.69e-02 1.001
## 2788    6.07e-03    2.73e-02 -4.64e-02   -1.76e-02 -1.88e-02 -9.34e-02 0.994
## 2789    1.30e-02    1.57e-02 -8.59e-02   -8.03e-02  1.04e-02 -1.35e-01 0.986
## 2790    1.95e-02    7.06e-03  1.48e-03    4.15e-02  2.82e-02 -9.38e-02 1.022
## 2791    9.98e-04   -4.74e-03  7.19e-03    5.57e-03 -4.85e-05 -1.17e-02 1.011
## 2792   -6.35e-04   -5.14e-03 -6.92e-03   -9.63e-03  5.41e-04 -2.11e-02 1.006
## 2793   -1.62e-03    1.93e-03  2.04e-05    5.91e-04 -2.23e-03 -1.07e-02 1.008
## 2794    7.01e-03    2.39e-02 -4.56e-02   -3.30e-02 -3.68e-04 -7.72e-02 1.002
## 2795    7.30e-03    1.69e-02 -6.69e-02   -3.58e-02  6.44e-03 -7.86e-02 1.002
## 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    5.81e-03   -1.99e-02 -3.61e-02   -3.46e-02  4.66e-03 -6.30e-02 1.007
## 2799    4.65e-03    1.04e-02 -1.66e-03   -7.00e-03  2.49e-03 -3.85e-02 1.006
## 2800    8.36e-03   -4.67e-02  9.35e-03   -6.79e-03  8.40e-03 -6.44e-02 1.008
## 2801    1.51e-03    9.60e-03 -1.48e-02   -1.26e-02  5.90e-03 -4.51e-02 1.003
## 2802    9.37e-04   -4.77e-03 -2.06e-02   -4.79e-02 -5.20e-03 -8.01e-02 0.993
## 2803    3.72e-02   -5.63e-02 -2.88e-02   -5.30e-02  3.31e-02 -1.73e-01 1.002
## 2804    1.16e-06   -4.30e-03 -2.46e-02   -2.64e-02 -5.80e-03 -5.05e-02 1.006
## 2805   -1.17e-02   -1.48e-02  1.31e-02    1.92e-03  6.38e-03 -7.64e-02 1.002
## 2806   -1.39e-04    3.06e-04 -1.24e-03   -1.10e-04 -2.74e-04  1.62e-03 1.007
## 2807   -3.09e-03   -4.97e-03 -3.81e-03   -5.07e-03 -6.37e-05  1.26e-02 1.006
## 2808    1.30e-02   -1.85e-02  5.07e-03   -1.88e-02  2.70e-02 -7.80e-02 1.003
## 2809    6.86e-02   -2.10e-02 -3.02e-02    3.58e-02 -8.28e-02 -1.85e-01 0.973
## 2810   -9.95e-04    1.26e-02 -1.25e-02    2.34e-02 -1.33e-02  7.99e-02 0.991
## 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  -1.80e-02   1.18e-02    1.30e-02 -5.01e-03   7.02e-02 1.000
## 2813    4.26e-03  -3.93e-03   1.60e-03    9.22e-04  3.16e-03  -1.75e-02 1.006
## 2814   -1.44e-02   6.21e-03   2.07e-02    6.06e-03 -1.74e-02   5.83e-02 1.008
## 2815   -2.52e-03  -3.24e-03   1.00e-02    1.70e-02 -7.28e-04   2.92e-02 1.003
## 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   1.85e-03   6.30e-03   -2.62e-04 -5.53e-04  -2.47e-02 1.009
## 2821   -9.72e-03  -2.58e-03   5.37e-03   -9.20e-04  8.27e-03   2.48e-02 1.007
## 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   -1.13e-02  -8.07e-03  -3.95e-02   -2.29e-02 -2.21e-02   8.04e-02 0.999
## 2826   -4.58e-03  -1.09e-03   2.87e-03    2.21e-03  9.03e-04   1.80e-02 1.018
## 2827    6.71e-03   1.38e-02  -1.72e-02   -1.04e-02 -1.20e-02  -4.54e-02 1.007
## 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   -4.30e-04  -5.15e-03   2.52e-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
## 2838   -1.01e-04  -2.50e-03   7.03e-03    8.62e-04 -2.58e-02   3.45e-02 1.007
## 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    2.14e-03   8.23e-03  -8.44e-03    3.85e-03 -3.01e-02   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    6.91e-04  -1.61e-03  -2.24e-03    4.62e-03 -5.91e-03  -2.10e-02 1.005
## 2850    8.01e-05   2.45e-04  -2.53e-04   -1.00e-03  6.30e-04  -4.03e-03 1.005
## 2851    7.96e-03  -1.41e-02  -1.13e-03    2.65e-03 -1.25e-02  -4.48e-02 0.999
## 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    4.76e-03  1.04e-02   3.27e-02 1.004
## 2854    2.13e-04  -5.39e-04  -2.19e-04    1.84e-03  9.72e-04   5.03e-03 1.005
## 2855    1.91e-04  -8.67e-03  -1.98e-03    1.25e-03  1.31e-02   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  -6.04e-03  -2.15e-03    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   -8.58e-04  -3.35e-05  -1.08e-03   -1.59e-03 -5.03e-04  -2.57e-03 1.005
## 2864   -7.89e-04   1.70e-02   1.53e-02   -4.32e-02  4.58e-02  -1.10e-01 1.006
## 2865   -3.37e-05  -3.51e-04   3.44e-04    5.16e-05  4.03e-05  -6.12e-04 1.006
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```
## 2866    2.52e-05   -3.54e-04   6.46e-04   -7.07e-04  -1.29e-03  -3.55e-03  1.005
## 2867   -2.19e-03    4.70e-03  -1.13e-02    2.09e-03  -1.49e-03   2.11e-02  1.005
## 2868   -3.65e-05    8.10e-04   2.18e-04    4.24e-03  -3.17e-04   8.42e-03  1.005
## 2869    1.85e-03   -9.26e-03   1.55e-03   -6.51e-03  -5.51e-03  -2.42e-02  1.004
## 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    5.46e-04   -4.81e-03  -1.44e-04   -8.19e-04   1.83e-03  -1.21e-02  1.007
## 2875   -1.75e-04    3.89e-04  -1.29e-04   -2.21e-04   1.76e-05  -1.25e-03  1.006
## 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    3.59e-03    1.47e-02  -1.17e-03    6.73e-03  -9.95e-03   3.64e-02  1.005
## 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    1.42e-03   -9.77e-03   5.69e-03    3.22e-03   8.75e-03   3.29e-02  1.003
## 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   -5.08e-03   5.89e-03    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
## 2892    1.85e-03   -1.71e-02   8.68e-03   -6.20e-03   9.47e-03  -3.24e-02  1.006
## 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    5.31e-04    8.03e-03  -2.99e-03   -7.63e-03  -5.37e-03  -2.33e-02  1.003
## 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   -1.10e-04    2.05e-03   1.50e-03   -3.04e-03  -6.25e-03  -1.79e-02  1.006
## 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    1.43e-03   -5.85e-03  -5.08e-04   -5.21e-03   4.52e-04  -1.40e-02  1.004
## 2913   -2.22e-06   -8.00e-03   9.34e-03   -3.41e-03   2.41e-05  -3.12e-02  1.002
## 2914    5.12e-04   -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    1.36e-03    7.79e-03  -1.35e-02    3.80e-03   2.88e-03   2.67e-02  1.004
## 2919    3.65e-03    1.12e-04  -1.05e-02    1.94e-03  -4.11e-04   1.62e-02  1.006
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## 2920   -2.28e-03   -2.39e-03   8.48e-03   -2.22e-03   5.45e-03  -3.04e-02  1.003
## 2921   -7.75e-04    2.83e-03  -3.26e-03    3.75e-04   1.01e-03   6.83e-03  1.005
## 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    2.25e-02   -3.17e-03  -2.07e-02    3.83e-02  -9.94e-04  -7.43e-02  1.003
## 2929    2.26e-04    6.23e-04  -1.38e-04    6.18e-05  -5.74e-05  -1.29e-03  1.005
## 2930    4.14e-03   -1.19e-02   2.28e-02    6.02e-03  -4.15e-03   3.56e-02  1.004
## 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    3.50e-03    2.84e-03  -9.35e-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   -1.12e-04   -2.73e-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   -3.63e-03    1.34e-02  -2.62e-03    1.13e-02  -2.48e-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
## 2946    8.13e-03    8.12e-03  -6.33e-04    1.37e-02  -1.24e-02   4.16e-02  1.001
## 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   -1.47e-02   8.93e-03   9.61e-02  0.998
## 2949   -2.48e-04   -1.50e-03   3.09e-05   -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    3.50e-03    7.11e-03   1.27e-02   -2.50e-03  -2.41e-03  -3.63e-02  1.000
## 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
## 2955    1.19e-04    1.51e-04   5.06e-04    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    9.06e-04   -8.87e-03   1.58e-02   -2.79e-03   1.06e-02  -3.49e-02  1.005
## 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
## 2960    3.32e-05    9.62e-05  -1.08e-05    3.15e-04  -2.44e-04   1.17e-03  1.006
## 2961   -8.57e-04   -1.15e-03   1.75e-03   -2.18e-03   7.25e-04  -8.59e-03  1.005
## 2962   -2.31e-04   -1.54e-03   2.75e-04    7.15e-04  -8.15e-04   5.65e-03  1.005
## 2963    9.96e-05   -3.46e-04   1.16e-03    3.27e-03  -1.44e-04   8.32e-03  1.005
## 2964    9.83e-04    1.49e-03   4.54e-04   -2.13e-03   8.16e-04  -1.11e-02  1.005
## 2965    3.45e-03    1.05e-02   1.64e-02   -1.53e-02   8.38e-03  -5.31e-02  1.000
## 2966   -4.68e-03   -1.39e-02   1.41e-02   -1.70e-04   5.55e-03  -6.56e-02  0.999
## 2967    1.48e-03   -8.97e-04  -1.02e-02   -8.14e-03   4.12e-03  -1.88e-02  1.006
## 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   -1.31e-03    2.46e-04  -1.10e-02   -1.89e-03   2.80e-03   2.26e-02  1.008
## 2971    1.84e-03    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
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## 2974   -3.98e-03   -3.74e-03   2.76e-02   -8.40e-03   8.59e-03   -6.54e-02 0.999
## 2975   -2.03e-03    8.73e-03  -7.84e-03   -8.90e-03  -7.09e-03   -2.67e-02 1.003
## 2976   -3.60e-04   -2.54e-03  -1.21e-03    5.46e-04  -1.73e-03    6.05e-03 1.006
## 2977   -1.31e-02   -9.17e-03  -8.62e-03   -1.78e-02   4.88e-03   -3.97e-02 1.000
## 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    3.57e-03   8.91e-03    1.66e-02  -1.08e-03    3.17e-02 1.005
## 2984   -4.90e-03    2.18e-02  -2.60e-03    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    8.43e-04   -2.27e-02  -7.38e-03   -2.78e-02  -7.81e-03    5.16e-02 0.999
## 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   -4.30e-04   -2.58e-03  -4.03e-04   -6.68e-03   6.19e-03   -1.97e-02 1.005
## 2995   -3.95e-03    2.39e-02   1.50e-03   -1.31e-02  -1.41e-03   -5.25e-02 0.999
## 2996   -1.79e-03   -9.40e-03   4.77e-03    1.01e-02  -2.74e-03    2.88e-02 1.004
## 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    3.36e-04    2.95e-05  -3.74e-03    2.82e-03  -1.22e-03    1.27e-02 1.005
## 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    4.56e-03   1.18e-02   -1.74e-02  -3.86e-03   -5.51e-02 1.011
## 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
## 3011    7.16e-04    5.05e-03  -8.65e-03    7.60e-04   6.18e-03   -2.73e-02 1.003
## 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
## 3014    9.11e-06    1.37e-03  -4.62e-03    1.90e-03  -8.89e-04    7.54e-03 1.006
## 3015    1.61e-03   -6.96e-03   2.28e-02   -7.91e-04   4.12e-03   -2.95e-02 1.007
## 3016    7.64e-04   -1.25e-03   5.82e-04    4.07e-04  -1.93e-05    2.46e-03 1.006
## 3017   -9.18e-04    6.32e-03   6.25e-03   -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
## 3019   -1.81e-03   -7.16e-03  -1.53e-02   -8.82e-05   9.66e-03    3.27e-02 1.002
## 3020   -5.85e-04    7.91e-04  -1.39e-03   -7.79e-04   2.10e-04    2.31e-03 1.005
## 3021   -2.43e-03   -3.00e-03  -9.84e-03   -3.40e-03   1.57e-03    1.57e-02 1.006
## 3022   -4.27e-03    1.75e-02  -9.25e-03    3.30e-03   2.39e-03    5.30e-02 0.998
## 3023   -1.95e-04    1.08e-04   4.73e-06   -3.62e-05  -1.24e-04   -4.39e-04 1.005
## 3024    4.53e-03   -3.26e-03   4.03e-03   -2.00e-03  -3.95e-03   -2.15e-02 1.006
## 3025   -2.33e-03    6.65e-04  -1.36e-03    1.10e-03   3.62e-03    1.16e-02 1.005
## 3026   -2.17e-03    2.63e-03  -1.09e-03    1.96e-03  -1.61e-03    9.73e-03 1.005
## 3027   -6.37e-05   -5.23e-04   6.68e-04    2.20e-04   5.23e-05    1.41e-03 1.006
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## 3028   -4.18e-03    3.17e-03    1.80e-03   -3.60e-03    7.54e-03   2.54e-02 1.004
## 3029   -8.15e-03    1.03e-03    9.94e-03   -8.59e-04    9.28e-04  -2.67e-02 1.006
## 3030   -2.39e-03    1.13e-02   -7.25e-03   -6.45e-03    3.03e-04  -3.65e-02 1.004
## 3031   -1.36e-03    1.10e-02   -1.08e-02    4.74e-03   -1.51e-03   2.29e-02 1.006
## 3032    1.25e-03   -8.98e-03   -3.14e-03   -1.82e-03   -3.77e-04   1.27e-02 1.005
## 3033   -1.84e-03   -1.02e-05   -2.21e-03   -1.09e-03   -1.38e-03   9.56e-03 1.004
## 3034   -5.69e-03    7.49e-05    3.13e-02   -8.66e-03   -3.32e-03   5.79e-02 0.996
## 3035   -2.77e-04   -2.68e-03   -1.67e-03    1.58e-03    9.96e-04   1.29e-02 1.004
## 3036    5.53e-03   -8.26e-02   -8.51e-03   -3.27e-02    7.84e-03   1.35e-01 0.995
## 3037   -2.62e-04   -9.44e-04    4.52e-03    5.21e-03   -1.48e-03   1.14e-02 1.005
## 3038    6.43e-03   -9.72e-03    1.47e-02    7.23e-03   -2.04e-03  -2.31e-02 1.004
## 3039    8.90e-03    1.36e-02    2.21e-02    1.68e-04   -4.73e-03  -5.34e-02 1.007
## 3040    2.27e-02    9.90e-03   -4.82e-02   -5.00e-02   -1.02e-02   1.13e-01 0.988
## 3041    3.22e-03   -3.24e-03    2.74e-02    2.45e-02    2.41e-02   7.97e-02 0.997
## 3042    3.96e-03    3.00e-02    2.06e-02    4.58e-03    7.85e-03  -5.84e-02 1.006
## 3043   -5.69e-03    9.85e-03   -6.15e-03   -2.08e-02    1.79e-03  -3.63e-02 1.002
## 3044   -5.42e-02   -1.90e-03   -2.37e-02   -1.61e-02   -6.49e-03  -7.89e-02 1.007
## 3045   -1.07e-02    3.20e-03   -2.54e-02    1.74e-02    2.06e-03  -6.68e-02 1.001
## 3046    7.10e-04    2.92e-03   -1.99e-04    3.07e-03   -2.30e-05   6.07e-03 1.005
## 3047   -2.87e-02    3.41e-02    3.23e-02    4.12e-02   -4.57e-03   1.27e-01 0.995
##          cook.d      hat inf
## 1      5.14e-05 0.001664
## 2      1.20e-06 0.002993
## 3      1.46e-04 0.001925
## 4      6.38e-05 0.001953
## 5      2.53e-05 0.002433
## 6      2.39e-04 0.002931
## 7      1.00e-04 0.003337
## 8      7.90e-05 0.003072
## 9      2.75e-05 0.003392
## 10     2.35e-05 0.002407
## 11     1.18e-03 0.003906
## 12     5.43e-05 0.001594
## 13     1.35e-04 0.001657
## 14     4.62e-05 0.004463
## 15     7.29e-07 0.001253
## 16     8.74e-06 0.001698
## 17     3.05e-05 0.001989
## 18     4.43e-04 0.002894
## 19     6.53e-06 0.001189
## 20     6.78e-05 0.001831
## 21     1.44e-03 0.012634    *
## 22     1.14e-05 0.004797
## 23     2.18e-05 0.002389
## 24     1.69e-04 0.001475
## 25     6.19e-04 0.002838
## 26     4.73e-06 0.007170
## 27     1.01e-05 0.001526
## 28     8.08e-07 0.005963
## 29     1.90e-03 0.010779
## 30     7.25e-04 0.008056
## 31     2.86e-03 0.009971
## 32     1.68e-04 0.001705
## 33     2.65e-04 0.005818
```

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## 34     4.98e-04 0.002505
## 35     1.72e-06 0.002167
## 36     1.61e-04 0.007868
## 37     6.89e-07 0.001623
## 38     2.84e-04 0.003848
## 39     6.02e-05 0.001373
## 40     1.89e-05 0.001215
## 41     1.08e-04 0.001757
## 42     4.77e-05 0.001821
## 43     4.70e-05 0.002709
## 44     1.48e-04 0.005029
## 45     4.95e-04 0.002263
## 46     1.60e-04 0.007130
## 47     1.24e-06 0.001724
## 48     4.95e-06 0.000820
## 49     1.05e-04 0.002506
## 50     1.25e-04 0.002013
## 51     7.59e-05 0.002800
## 52     5.52e-04 0.005877
## 53     4.70e-04 0.006008
## 54     4.29e-05 0.001622
## 55     8.42e-04 0.005543
## 56     5.36e-05 0.001725
## 57     1.05e-06 0.002709
## 58     3.61e-04 0.002396
## 59     2.99e-04 0.001613
## 60     1.04e-05 0.005307
## 61     2.84e-05 0.001266
## 62     1.27e-05 0.001498
## 63     2.67e-05 0.000733
## 64     3.03e-05 0.001937
## 65     9.67e-05 0.002122
## 66     1.96e-05 0.004881
## 67     2.13e-04 0.005714
## 68     1.23e-07 0.001507
## 69     4.37e-04 0.002564
## 70     2.97e-05 0.001983
## 71     1.09e-05 0.001428
## 72     9.04e-07 0.001852
## 73     1.81e-03 0.005731
## 74     1.46e-06 0.002654
## 75     3.19e-08 0.001825
## 76     6.43e-06 0.001249
## 77     1.36e-03 0.004112
## 78     1.45e-04 0.002722
## 79     6.98e-04 0.001990
## 80     1.69e-07 0.001211
## 81     2.75e-04 0.003695
## 82     5.70e-05 0.001294
## 83     4.90e-05 0.001846
## 84     3.62e-04 0.002959
## 85     6.45e-06 0.002779
## 86     5.19e-05 0.000976
## 87     7.34e-04 0.004065
```

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## 88   5.22e-09 0.001661
## 89   6.06e-06 0.000995
## 90   5.96e-06 0.003206
## 91   3.23e-05 0.002074
## 92   4.23e-05 0.002215
## 93   1.26e-03 0.003721
## 94   9.69e-08 0.002666
## 95   5.63e-06 0.002524
## 96   1.39e-03 0.005761
## 97   2.67e-05 0.001121
## 98   2.38e-04 0.001552
## 99   3.49e-06 0.002395
## 100  3.41e-07 0.001674
## 101  2.60e-06 0.003246
## 102  1.90e-04 0.003802
## 103  1.24e-03 0.004168
## 104  1.12e-03 0.008414
## 105  8.51e-04 0.002937
## 106  1.21e-05 0.007507
## 107  4.83e-05 0.002913
## 108  2.34e-05 0.002972
## 109  4.70e-05 0.006553
## 110  1.22e-04 0.001408
## 111  9.40e-05 0.002193
## 112  5.24e-04 0.002780
## 113  8.87e-06 0.005841
## 114  3.02e-04 0.002501
## 115  3.09e-04 0.002057
## 116  1.09e-02 0.008822     *
## 117  3.66e-06 0.002729
## 118  9.66e-05 0.003984
## 119  3.63e-03 0.004853     *
## 120  2.15e-03 0.002984     *
## 121  1.29e-04 0.003833
## 122  7.75e-03 0.007746     *
## 123  6.54e-04 0.004843
## 124  9.79e-04 0.001133     *
## 125  2.01e-03 0.005757
## 126  1.43e-05 0.002482
## 127  9.96e-07 0.002380
## 128  1.12e-04 0.003081
## 129  1.58e-08 0.001682
## 130  5.91e-05 0.002221
## 131  4.86e-05 0.002253
## 132  1.36e-08 0.001531
## 133  1.13e-05 0.002066
## 134  1.84e-05 0.001510
## 135  3.90e-06 0.001478
## 136  5.19e-06 0.002218
## 137  1.19e-06 0.002379
## 138  3.17e-05 0.002059
## 139  5.11e-06 0.004443
## 140  1.04e-05 0.012089     *
## 141  3.05e-05 0.003432
```

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## 142  3.59e-07 0.003980
## 143  6.54e-06 0.003096
## 144  6.22e-06 0.004113
## 145  5.98e-05 0.005702
## 146  6.99e-05 0.003219
## 147  7.33e-05 0.012775    *
## 148  2.83e-04 0.003230
## 149  1.01e-04 0.005029
## 150  5.48e-04 0.026607    *
## 151  2.92e-05 0.003192
## 152  5.29e-05 0.005788
## 153  3.89e-05 0.001691
## 154  2.69e-05 0.004376
## 155  8.58e-06 0.001857
## 156  6.45e-05 0.013355    *
## 157  2.82e-05 0.003006
## 158  2.12e-05 0.006022
## 159  8.21e-06 0.002205
## 160  1.30e-04 0.005818
## 161  1.09e-04 0.015644    *
## 162  2.03e-05 0.005701
## 163  1.27e-03 0.006878
## 164  5.33e-04 0.005300
## 165  1.28e-06 0.008818    *
## 166  1.16e-02 0.015144    *
## 167  4.94e-04 0.005828
## 168  3.05e-05 0.002208
## 169  1.11e-06 0.004737
## 170  9.93e-04 0.010582
## 171  3.16e-04 0.006657
## 172  4.97e-05 0.002804
## 173  1.01e-03 0.005074
## 174  5.98e-04 0.003827
## 175  3.64e-04 0.005223
## 176  4.75e-03 0.009677    *
## 177  5.27e-04 0.046922    *
## 178  2.82e-05 0.003144
## 179  1.78e-05 0.007036
## 180  3.13e-05 0.013092    *
## 181  9.04e-04 0.012872    *
## 182  1.90e-04 0.003308
## 183  4.56e-04 0.003609
## 184  5.09e-03 0.047187    *
## 185  6.47e-04 0.004367
## 186  3.35e-06 0.007415
## 187  6.49e-04 0.007423
## 188  3.72e-04 0.012340    *
## 189  3.41e-03 0.005493    *
## 190  8.03e-04 0.009203
## 191  2.78e-05 0.009665    *
## 192  9.88e-09 0.003470
## 193  1.58e-05 0.002573
## 194  6.77e-04 0.047133    *
## 195  1.43e-04 0.002352
```

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## 196   1.96e-04 0.001389
## 197   1.29e-04 0.001722
## 198   3.55e-04 0.002753
## 199   1.75e-05 0.002132
## 200   4.34e-05 0.001303
## 201   6.24e-05 0.003727
## 202   2.09e-03 0.010706
## 203   6.68e-04 0.003485
## 204   1.08e-05 0.002294
## 205   1.31e-04 0.002678
## 206   3.08e-04 0.003986
## 207   9.10e-05 0.003758
## 208   2.40e-04 0.005025
## 209   3.72e-03 0.006386    *
## 210   5.01e-04 0.015223    *
## 211   7.03e-05 0.002030
## 212   1.78e-04 0.003372
## 213   9.60e-06 0.001518
## 214   1.36e-04 0.004421
## 215   5.99e-04 0.003478
## 216   8.48e-04 0.006438
## 217   6.46e-05 0.010102    *
## 218   1.04e-07 0.003256
## 219   9.90e-04 0.003698
## 220   3.73e-04 0.004104
## 221   2.80e-04 0.006297
## 222   2.19e-05 0.003706
## 223   1.85e-05 0.001665
## 224   9.26e-05 0.001102
## 225   2.34e-04 0.005640
## 226   4.55e-05 0.001602
## 227   5.04e-06 0.004532
## 228   3.42e-04 0.005661
## 229   7.60e-05 0.006053
## 230   1.62e-04 0.005542
## 231   1.83e-04 0.001559
## 232   4.67e-05 0.003141
## 233   1.65e-06 0.002582
## 234   2.85e-06 0.002086
## 235   4.04e-05 0.002897
## 236   3.93e-06 0.000972
## 237   8.93e-04 0.001953    *
## 238   1.55e-03 0.004700
## 239   1.17e-05 0.000844
## 240   3.57e-04 0.002063
## 241   2.61e-04 0.004176
## 242   4.65e-05 0.002715
## 243   5.25e-04 0.005958
## 244   5.73e-05 0.005818
## 245   5.35e-05 0.012121    *
## 246   5.08e-04 0.001689
## 247   2.64e-04 0.001027
## 248   1.61e-05 0.000986
## 249   1.26e-05 0.002820
```

```
## 250   1.70e-03 0.003041    *
## 251   1.07e-07 0.001189
## 252   9.60e-05 0.005319
## 253   3.19e-05 0.009348    *
## 254   1.14e-02 0.010661    *
## 255   1.63e-03 0.006749
## 256   1.18e-02 0.017070    *
## 257   1.36e-04 0.003132
## 258   4.57e-04 0.003549
## 259   2.58e-05 0.006583
## 260   4.52e-07 0.007224
## 261   7.59e-04 0.006328
## 262   3.18e-04 0.006318
## 263   7.49e-05 0.004817
## 264   9.05e-03 0.011863    *
## 265   1.63e-03 0.008221
## 266   1.47e-05 0.004956
## 267   8.43e-05 0.003962
## 268   1.63e-04 0.003658
## 269   4.13e-06 0.004114
## 270   9.20e-05 0.010177    *
## 271   1.08e-03 0.014186    *
## 272   3.59e-06 0.002491
## 273   8.65e-04 0.005296
## 274   3.83e-05 0.014645    *
## 275   1.23e-04 0.008216
## 276   6.58e-07 0.004420
## 277   7.28e-05 0.002834
## 278   2.10e-04 0.003352
## 279   3.64e-04 0.003930
## 280   7.73e-05 0.003145
## 281   3.19e-05 0.007401
## 282   1.48e-01 0.041705    *
## 283   1.01e-03 0.005010
## 284   2.16e-04 0.021174    *
## 285   2.32e-04 0.002554
## 286   9.27e-06 0.003109
## 287   9.97e-05 0.001183
## 288   1.31e-05 0.001967
## 289   8.93e-05 0.001878
## 290   2.10e-04 0.003317
## 291   2.28e-06 0.001735
## 292   4.46e-06 0.012476    *
## 293   1.54e-04 0.003811
## 294   4.30e-05 0.012607    *
## 295   5.26e-04 0.005802
## 296   6.46e-04 0.013011    *
## 297   8.18e-05 0.003285
## 298   3.65e-04 0.002190
## 299   5.54e-04 0.003968
## 300   4.84e-05 0.010845    *
## 301   4.80e-06 0.002255
## 302   2.86e-06 0.004710
## 303   8.95e-05 0.003746
```

```
## 304   9.21e-07 0.003321
## 305   1.05e-04 0.002199
## 306   9.10e-05 0.003021
## 307   1.36e-04 0.001809
## 308   3.24e-05 0.001294
## 309   6.66e-05 0.002980
## 310   6.89e-06 0.002335
## 311   1.51e-03 0.006914
## 312   3.61e-04 0.001854
## 313   3.85e-05 0.001244
## 314   1.73e-04 0.001823
## 315   1.75e-06 0.005229
## 316   1.30e-05 0.001222
## 317   3.37e-04 0.004439
## 318   2.47e-07 0.002228
## 319   2.15e-04 0.004279
## 320   6.08e-05 0.005510
## 321   5.96e-05 0.008217    *
## 322   2.56e-05 0.001274
## 323   1.80e-05 0.002651
## 324   2.65e-05 0.001499
## 325   5.35e-05 0.001152
## 326   1.29e-03 0.005009
## 327   5.06e-04 0.006326
## 328   1.55e-05 0.002446
## 329   1.20e-04 0.004991
## 330   1.86e-05 0.001337
## 331   1.50e-05 0.002322
## 332   2.83e-06 0.004789
## 333   1.06e-04 0.004593
## 334   6.56e-06 0.001513
## 335   1.58e-04 0.002426
## 336   1.79e-06 0.002176
## 337   5.16e-04 0.003262
## 338   2.75e-05 0.004354
## 339   1.15e-03 0.005462
## 340   4.89e-05 0.001304
## 341   5.58e-05 0.002065
## 342   4.76e-04 0.002743
## 343   4.77e-05 0.002067
## 344   2.54e-04 0.007549
## 345   2.62e-05 0.002034
## 346   3.16e-04 0.003141
## 347   6.88e-05 0.002399
## 348   1.36e-04 0.002950
## 349   4.04e-06 0.003938
## 350   2.22e-06 0.006793
## 351   1.55e-04 0.002571
## 352   1.86e-04 0.006226
## 353   4.36e-05 0.001021
## 354   1.49e-05 0.003285
## 355   5.20e-06 0.005956
## 356   8.12e-06 0.006191
## 357   2.37e-05 0.001683
```

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## 358  2.82e-06 0.001472
## 359  3.27e-06 0.002392
## 360  2.37e-05 0.002507
## 361  6.18e-04 0.005362
## 362  9.15e-06 0.001690
## 363  6.15e-08 0.001191
## 364  2.68e-05 0.001058
## 365  3.00e-05 0.004473
## 366  7.35e-05 0.003868
## 367  6.73e-06 0.001984
## 368  1.32e-04 0.002901
## 369  1.02e-05 0.001983
## 370  4.89e-05 0.001333
## 371  1.46e-04 0.002259
## 372  1.05e-04 0.001777
## 373  4.53e-05 0.002006
## 374  1.80e-06 0.001623
## 375  9.12e-07 0.003540
## 376  1.39e-04 0.002066
## 377  6.87e-06 0.002071
## 378  2.11e-05 0.002747
## 379  4.22e-05 0.001218
## 380  1.20e-05 0.001311
## 381  4.11e-05 0.001684
## 382  2.93e-06 0.001297
## 383  1.67e-06 0.002089
## 384  5.22e-06 0.003610
## 385  2.78e-04 0.001347
## 386  1.14e-04 0.003253
## 387  4.76e-04 0.007813
## 388  1.17e-05 0.000975
## 389  4.06e-06 0.001897
## 390  2.04e-06 0.001754
## 391  3.43e-05 0.002237
## 392  2.33e-04 0.002689
## 393  2.59e-04 0.006800
## 394  5.68e-04 0.013744    *
## 395  1.43e-05 0.001741
## 396  5.13e-05 0.002149
## 397  1.33e-05 0.002260
## 398  2.88e-05 0.001578
## 399  3.30e-07 0.003080
## 400  2.02e-05 0.001636
## 401  1.10e-05 0.002622
## 402  2.53e-07 0.001244
## 403  1.81e-06 0.005259
## 404  6.03e-06 0.001057
## 405  7.45e-05 0.002460
## 406  1.12e-06 0.001760
## 407  1.30e-04 0.003246
## 408  6.64e-05 0.001724
## 409  8.80e-06 0.001942
## 410  9.31e-05 0.002834
## 411  3.66e-04 0.003358
```

```
## 412   3.01e-04 0.005467
## 413   5.17e-05 0.002429
## 414   8.52e-06 0.003003
## 415   3.85e-04 0.001445
## 416   9.94e-05 0.000845
## 417   2.60e-05 0.002586
## 418   3.78e-05 0.002038
## 419   1.89e-04 0.006683
## 420   2.34e-05 0.005431
## 421   6.93e-07 0.002900
## 422   1.08e-03 0.003400
## 423   3.97e-04 0.003630
## 424   2.88e-05 0.001366
## 425   2.21e-04 0.003360
## 426   2.62e-05 0.001766
## 427   5.98e-05 0.004205
## 428   5.37e-05 0.002429
## 429   4.40e-05 0.001334
## 430   1.01e-05 0.004027
## 431   2.50e-06 0.006105
## 432   9.35e-06 0.001620
## 433   2.95e-06 0.001598
## 434   5.91e-05 0.001623
## 435   1.30e-04 0.004470
## 436   3.69e-04 0.004315
## 437   4.71e-05 0.001677
## 438   6.91e-06 0.001194
## 439   2.23e-05 0.001415
## 440   3.36e-04 0.007562
## 441   3.51e-04 0.003064
## 442   4.16e-04 0.003836
## 443   3.06e-06 0.003227
## 444   1.51e-04 0.005132
## 445   1.07e-05 0.002348
## 446   2.15e-04 0.006943
## 447   1.07e-03 0.005843
## 448   2.20e-03 0.008282
## 449   2.03e-05 0.002791
## 450   2.09e-05 0.004537
## 451   1.16e-04 0.003248
## 452   5.11e-07 0.000855
## 453   2.99e-04 0.003673
## 454   8.91e-05 0.002964
## 455   4.47e-05 0.002539
## 456   1.36e-03 0.008211
## 457   4.68e-05 0.001492
## 458   7.83e-04 0.002354
## 459   4.23e-06 0.004056
## 460   1.93e-04 0.002908
## 461   4.19e-04 0.004539
## 462   8.44e-04 0.005855
## 463   2.14e-05 0.005039
## 464   1.54e-03 0.005140
## 465   2.74e-04 0.002751
```

```
## 466  1.56e-03 0.005354
## 467  3.92e-04 0.004632
## 468  1.99e-05 0.002907
## 469  1.61e-03 0.003639     *
## 470  3.82e-05 0.004809
## 471  2.93e-04 0.005166
## 472  1.61e-03 0.004864
## 473  2.54e-05 0.005973
## 474  2.68e-03 0.007103
## 475  7.34e-05 0.003088
## 476  2.14e-03 0.005970
## 477  7.53e-05 0.001429
## 478  1.16e-03 0.004801
## 479  1.15e-07 0.008782     *
## 480  4.31e-04 0.003372
## 481  2.31e-04 0.002129
## 482  5.97e-06 0.002154
## 483  2.29e-04 0.005051
## 484  1.79e-03 0.004586
## 485  9.74e-07 0.004732
## 486  3.07e-04 0.002535
## 487  1.01e-03 0.004793
## 488  1.30e-05 0.004197
## 489  8.45e-05 0.003790
## 490  3.95e-05 0.004066
## 491  2.44e-04 0.002036
## 492  9.64e-04 0.017782     *
## 493  8.29e-06 0.004594
## 494  2.05e-03 0.006962
## 495  2.57e-03 0.010811
## 496  2.73e-04 0.002629
## 497  4.74e-04 0.004805
## 498  3.74e-07 0.002897
## 499  2.09e-04 0.003755
## 500  1.04e-05 0.002874
## 501  2.45e-06 0.001528
## 502  2.85e-08 0.000621
## 503  5.26e-05 0.000980
## 504  2.48e-05 0.001293
## 505  3.54e-04 0.002142
## 506  1.80e-05 0.002135
## 507  3.19e-05 0.002167
## 508  1.57e-04 0.001267
## 509  4.62e-04 0.005105
## 510  5.79e-04 0.002070
## 511  4.22e-06 0.001925
## 512  1.51e-03 0.005659
## 513  5.26e-05 0.004827
## 514  1.92e-03 0.004479
## 515  1.28e-03 0.004864
## 516  1.17e-06 0.001941
## 517  1.16e-04 0.001947
## 518  1.21e-03 0.004321
## 519  3.79e-05 0.000723
```

```
## 520   3.58e-04 0.003037
## 521   5.14e-05 0.001132
## 522   4.04e-03 0.005562    *
## 523   7.31e-04 0.002315
## 524   2.75e-03 0.004971    *
## 525   3.10e-04 0.007565
## 526   6.21e-04 0.005394
## 527   3.78e-05 0.005389
## 528   9.54e-06 0.002143
## 529   2.65e-04 0.002068
## 530   2.69e-05 0.005300
## 531   3.37e-05 0.001277
## 532   1.19e-06 0.001842
## 533   9.34e-05 0.001574
## 534   1.02e-05 0.004150
## 535   1.04e-04 0.000931
## 536   1.17e-07 0.001078
## 537   1.63e-03 0.003165    *
## 538   1.03e-05 0.001435
## 539   5.53e-06 0.004296
## 540   2.20e-04 0.005226
## 541   5.59e-06 0.005164
## 542   6.94e-06 0.004691
## 543   1.01e-04 0.004345
## 544   7.50e-04 0.005420
## 545   2.42e-04 0.006735
## 546   5.81e-06 0.006119
## 547   1.79e-05 0.000938
## 548   4.57e-04 0.001570
## 549   5.65e-04 0.001720
## 550   1.95e-04 0.001704
## 551   2.67e-04 0.002191
## 552   8.15e-04 0.006077
## 553   2.60e-04 0.001596
## 554   1.48e-03 0.003813
## 555   1.00e-04 0.004383
## 556   1.08e-03 0.006009
## 557   2.23e-04 0.004175
## 558   4.46e-08 0.000859
## 559   1.27e-03 0.004504
## 560   1.08e-04 0.004759
## 561   2.82e-04 0.001870
## 562   1.54e-03 0.005756
## 563   5.49e-05 0.001567
## 564   7.75e-04 0.001664    *
## 565   2.85e-05 0.004017
## 566   2.82e-04 0.002056
## 567   5.52e-05 0.001478
## 568   3.04e-06 0.002629
## 569   2.32e-05 0.000809
## 570   3.71e-04 0.001585
## 571   2.35e-04 0.005571
## 572   1.63e-09 0.001367
## 573   6.64e-04 0.005024
```

```
## 574  8.02e-04 0.005667
## 575  5.05e-05 0.002538
## 576  2.15e-03 0.014955    *
## 577  8.22e-05 0.005088
## 578  1.59e-04 0.005208
## 579  2.08e-04 0.002253
## 580  1.33e-04 0.004635
## 581  6.57e-05 0.003342
## 582  1.98e-04 0.002474
## 583  8.44e-06 0.005432
## 584  8.28e-04 0.003679
## 585  1.29e-03 0.036442    *
## 586  1.89e-04 0.004993
## 587  5.45e-05 0.003423
## 588  7.85e-05 0.003763
## 589  5.45e-05 0.002913
## 590  2.46e-04 0.008523
## 591  1.99e-06 0.010939    *
## 592  3.48e-07 0.002583
## 593  1.98e-04 0.003138
## 594  2.30e-04 0.015100    *
## 595  7.43e-05 0.002772
## 596  8.00e-06 0.003065
## 597  3.00e-03 0.012498    *
## 598  5.58e-04 0.003493
## 599  2.41e-04 0.005412
## 600  5.33e-04 0.002589
## 601  1.07e-05 0.001309
## 602  6.31e-04 0.003014
## 603  2.91e-04 0.004820
## 604  1.04e-03 0.009311
## 605  4.50e-04 0.004513
## 606  3.97e-04 0.007954
## 607  9.22e-04 0.007160
## 608  7.21e-05 0.003327
## 609  6.09e-04 0.007164
## 610  5.95e-04 0.002135
## 611  4.77e-04 0.003429
## 612  1.34e-05 0.001626
## 613  6.10e-04 0.004171
## 614  1.54e-04 0.001877
## 615  5.18e-08 0.004894
## 616  1.52e-03 0.009896
## 617  7.81e-04 0.003722
## 618  2.09e-03 0.006312
## 619  2.08e-06 0.004105
## 620  1.97e-04 0.004022
## 621  2.34e-03 0.003683    *
## 622  5.24e-05 0.003303
## 623  3.54e-05 0.001382
## 624  2.01e-04 0.004693
## 625  8.14e-04 0.002424
## 626  1.03e-03 0.006104
## 627  3.72e-03 0.004791    *
```

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## 628   5.18e-05 0.002225
## 629   9.53e-05 0.002258
## 630   6.81e-04 0.004719
## 631   7.06e-06 0.003709
## 632   4.64e-05 0.002015
## 633   2.17e-04 0.004773
## 634   4.15e-05 0.006144
## 635   1.13e-06 0.003236
## 636   1.78e-04 0.001891
## 637   4.71e-05 0.001350
## 638   2.27e-04 0.001996
## 639   2.32e-04 0.004083
## 640   1.32e-04 0.004488
## 641   1.18e-04 0.003341
## 642   7.47e-04 0.002791
## 643   4.05e-04 0.001946
## 644   3.76e-06 0.002485
## 645   1.54e-04 0.002052
## 646   3.24e-05 0.001613
## 647   1.88e-03 0.010189
## 648   5.49e-05 0.006029
## 649   2.35e-04 0.001655
## 650   1.60e-03 0.003504    *
## 651   1.32e-07 0.000896
## 652   1.89e-06 0.001044
## 653   1.15e-05 0.001844
## 654   3.81e-05 0.001607
## 655   3.42e-05 0.001600
## 656   4.56e-04 0.004281
## 657   9.41e-04 0.005278
## 658   3.91e-04 0.001713
## 659   9.95e-06 0.000942
## 660   2.06e-03 0.004571    *
## 661   8.88e-04 0.006908
## 662   1.51e-04 0.002533
## 663   2.64e-05 0.002239
## 664   2.37e-04 0.002166
## 665   1.23e-07 0.002553
## 666   1.89e-03 0.002649    *
## 667   1.62e-06 0.003091
## 668   2.65e-07 0.002602
## 669   2.82e-05 0.001338
## 670   1.14e-03 0.002315    *
## 671   1.00e-04 0.001886
## 672   2.55e-04 0.001376
## 673   1.47e-06 0.002286
## 674   5.27e-04 0.002035
## 675   5.15e-05 0.002291
## 676   9.54e-06 0.003186
## 677   1.56e-05 0.001126
## 678   3.94e-05 0.001762
## 679   8.74e-06 0.000889
## 680   4.23e-04 0.001263
## 681   8.17e-05 0.001679
```

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## 682  4.96e-06 0.002140
## 683  3.99e-05 0.002394
## 684  7.31e-05 0.001902
## 685  1.65e-05 0.002443
## 686  2.35e-05 0.003904
## 687  1.10e-04 0.001789
## 688  3.05e-06 0.002049
## 689  4.17e-06 0.001830
## 690  4.07e-04 0.002048
## 691  8.35e-06 0.001053
## 692  1.63e-04 0.001780
## 693  2.47e-04 0.007833
## 694  9.96e-06 0.002551
## 695  8.70e-05 0.003388
## 696  1.52e-04 0.001845
## 697  1.39e-05 0.001387
## 698  6.82e-05 0.002927
## 699  2.75e-04 0.001505
## 700  1.27e-04 0.001263
## 701  1.17e-05 0.001478
## 702  4.77e-05 0.001527
## 703  6.69e-06 0.003085
## 704  2.65e-04 0.004720
## 705  5.07e-07 0.001084
## 706  1.29e-04 0.000891
## 707  4.61e-05 0.000879
## 708  8.01e-05 0.003123
## 709  5.72e-06 0.001055
## 710  7.17e-05 0.003854
## 711  1.81e-06 0.002146
## 712  4.39e-06 0.000977
## 713  2.24e-04 0.004754
## 714  2.71e-06 0.006496
## 715  5.70e-05 0.003090
## 716  5.40e-05 0.001700
## 717  2.31e-04 0.005274
## 718  5.05e-05 0.000930
## 719  1.56e-04 0.001891
## 720  2.54e-05 0.002268
## 721  2.48e-04 0.001141
## 722  1.55e-04 0.001572
## 723  1.63e-07 0.003878
## 724  2.28e-08 0.001790
## 725  3.96e-04 0.004743
## 726  5.75e-08 0.001405
## 727  2.95e-03 0.014142    *
## 728  6.96e-06 0.005934
## 729  1.42e-05 0.004294
## 730  3.32e-05 0.003690
## 731  5.11e-05 0.001019
## 732  7.91e-05 0.002197
## 733  2.58e-05 0.000878
## 734  2.10e-04 0.005100
## 735  3.03e-05 0.002272
```

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## 736  3.38e-07 0.002638
## 737  1.37e-04 0.002167
## 738  1.24e-04 0.000790
## 739  1.06e-05 0.000668
## 740  6.79e-04 0.006952
## 741  2.20e-05 0.003777
## 742  2.79e-04 0.002704
## 743  2.56e-04 0.001565
## 744  1.01e-04 0.004128
## 745  1.52e-04 0.001471
## 746  3.81e-04 0.001975
## 747  1.99e-04 0.004893
## 748  1.83e-03 0.006993
## 749  1.02e-03 0.002104    *
## 750  3.19e-05 0.002476
## 751  1.06e-04 0.002505
## 752  5.88e-06 0.001566
## 753  4.43e-08 0.001525
## 754  1.47e-05 0.001547
## 755  1.22e-03 0.006702
## 756  3.64e-04 0.001119
## 757  1.45e-05 0.001983
## 758  1.73e-04 0.003840
## 759  3.78e-04 0.001227
## 760  4.42e-04 0.002051
## 761  1.64e-07 0.001053
## 762  2.11e-05 0.000896
## 763  1.25e-04 0.001936
## 764  2.60e-04 0.002660
## 765  1.10e-04 0.003677
## 766  1.00e-04 0.003054
## 767  5.33e-04 0.004665
## 768  1.48e-04 0.001646
## 769  2.69e-06 0.001365
## 770  1.38e-05 0.004629
## 771  6.58e-04 0.004017
## 772  3.20e-05 0.002332
## 773  2.41e-04 0.005191
## 774  1.21e-05 0.001154
## 775  3.30e-03 0.003551    *
## 776  2.76e-04 0.005092
## 777  2.11e-04 0.002302
## 778  1.78e-04 0.002799
## 779  5.21e-05 0.004636
## 780  2.53e-03 0.005081    *
## 781  3.97e-06 0.001789
## 782  3.66e-06 0.001756
## 783  4.88e-03 0.009019    *
## 784  4.70e-04 0.003527
## 785  6.99e-05 0.002086
## 786  6.14e-04 0.005644
## 787  1.95e-04 0.004211
## 788  2.66e-07 0.002642
## 789  1.39e-05 0.002522
```

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## 790   6.70e-05 0.006392
## 791   3.17e-04 0.002484
## 792   3.84e-06 0.001133
## 793   8.10e-05 0.002709
## 794   3.05e-04 0.008120
## 795   2.32e-05 0.006464
## 796   2.03e-03 0.015187    *
## 797   9.67e-05 0.001714
## 798   9.11e-05 0.004106
## 799   4.61e-05 0.001939
## 800   4.41e-06 0.004562
## 801   3.29e-07 0.001323
## 802   6.33e-07 0.002799
## 803   2.15e-03 0.003629    *
## 804   1.16e-04 0.006988
## 805   1.37e-03 0.005501
## 806   7.11e-07 0.004814
## 807   6.50e-06 0.002777
## 808   8.96e-06 0.003822
## 809   3.77e-06 0.009999    *
## 810   3.84e-07 0.005745
## 811   5.26e-05 0.004257
## 812   3.79e-03 0.003624    *
## 813   1.78e-04 0.001863
## 814   2.99e-06 0.002418
## 815   8.67e-05 0.005577
## 816   4.14e-05 0.004373
## 817   4.55e-05 0.002592
## 818   6.95e-06 0.002063
## 819   9.96e-07 0.002526
## 820   3.22e-05 0.000842
## 821   1.12e-04 0.003359
## 822   3.15e-04 0.006681
## 823   1.98e-07 0.001980
## 824   1.60e-03 0.007496
## 825   4.17e-04 0.005230
## 826   2.67e-04 0.004263
## 827   3.18e-08 0.007318
## 828   1.87e-05 0.003013
## 829   1.94e-05 0.001670
## 830   2.79e-05 0.002475
## 831   8.59e-06 0.001797
## 832   3.51e-04 0.003900
## 833   3.69e-05 0.005377
## 834   1.93e-06 0.002184
## 835   5.48e-04 0.002543
## 836   4.37e-05 0.001720
## 837   2.27e-04 0.005579
## 838   7.10e-05 0.004068
## 839   2.07e-04 0.004644
## 840   9.57e-05 0.008693    *
## 841   1.04e-05 0.001897
## 842   1.97e-06 0.002385
## 843   5.25e-06 0.001260
```

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## 844  8.29e-05 0.002529
## 845  6.63e-03 0.008605    *
## 846  1.25e-04 0.003097
## 847  2.85e-04 0.002073
## 848  3.20e-04 0.002502
## 849  2.50e-04 0.003111
## 850  1.74e-05 0.004110
## 851  1.68e-05 0.002772
## 852  1.94e-04 0.003384
## 853  1.74e-04 0.010786    *
## 854  1.07e-03 0.010029
## 855  2.28e-04 0.006032
## 856  6.04e-06 0.001234
## 857  9.18e-07 0.002192
## 858  2.48e-06 0.001838
## 859  3.51e-06 0.001503
## 860  1.20e-04 0.004099
## 861  4.08e-05 0.001463
## 862  1.15e-04 0.001905
## 863  1.56e-07 0.002341
## 864  5.57e-07 0.001472
## 865  4.31e-08 0.002511
## 866  1.99e-07 0.003102
## 867  2.65e-06 0.002162
## 868  7.40e-05 0.001610
## 869  7.89e-06 0.001187
## 870  2.35e-04 0.002430
## 871  8.80e-06 0.001231
## 872  1.82e-04 0.001980
## 873  1.00e-04 0.002505
## 874  1.37e-05 0.002978
## 875  8.70e-05 0.002686
## 876  2.37e-07 0.000999
## 877  1.07e-04 0.002666
## 878  6.98e-05 0.001193
## 879  1.43e-03 0.006707
## 880  6.33e-08 0.002171
## 881  4.75e-06 0.002341
## 882  2.08e-05 0.001073
## 883  1.72e-07 0.002243
## 884  9.55e-05 0.014242    *
## 885  3.43e-05 0.001940
## 886  2.43e-04 0.010336    *
## 887  1.39e-03 0.010982
## 888  1.43e-04 0.002755
## 889  3.52e-04 0.002500
## 890  4.10e-04 0.005064
## 891  4.12e-05 0.001873
## 892  3.17e-06 0.001048
## 893  8.89e-05 0.002149
## 894  2.25e-08 0.002225
## 895  1.31e-03 0.009085
## 896  1.33e-04 0.003072
## 897  1.81e-04 0.003263
```

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## 898   2.29e-04 0.003167
## 899   1.53e-05 0.001822
## 900   2.84e-03 0.012709    *
## 901   1.92e-05 0.002349
## 902   1.49e-03 0.006092
## 903   9.64e-05 0.002029
## 904   4.00e-05 0.002925
## 905   2.53e-03 0.011984    *
## 906   2.18e-07 0.001929
## 907   6.44e-04 0.005337
## 908   2.65e-04 0.002827
## 909   2.44e-06 0.002234
## 910   1.27e-05 0.005255
## 911   7.95e-05 0.002287
## 912   1.48e-02 0.011884    *
## 913   4.54e-03 0.010212    *
## 914   4.38e-06 0.003441
## 915   4.49e-04 0.006267
## 916   2.40e-03 0.007334
## 917   4.61e-05 0.001320
## 918   1.38e-03 0.005456
## 919   4.07e-04 0.004761
## 920   1.10e-03 0.004880
## 921   1.98e-03 0.002555    *
## 922   5.23e-06 0.007933    *
## 923   2.13e-03 0.005403
## 924   4.09e-04 0.006134
## 925   2.33e-03 0.005095    *
## 926   1.49e-04 0.004018
## 927   9.68e-06 0.010695    *
## 928   4.60e-04 0.005289
## 929   2.60e-04 0.002130
## 930   2.82e-03 0.011777
## 931   4.05e-06 0.006452
## 932   8.94e-05 0.002724
## 933   5.02e-04 0.002275
## 934   9.64e-04 0.005069
## 935   5.78e-04 0.005326
## 936   1.70e-03 0.009864
## 937   1.62e-03 0.003814    *
## 938   8.98e-04 0.003333
## 939   3.67e-04 0.007847
## 940   2.88e-04 0.002093
## 941   5.47e-05 0.001465
## 942   1.10e-05 0.001432
## 943   1.33e-07 0.001357
## 944   4.25e-06 0.003087
## 945   2.73e-04 0.002498
## 946   1.11e-04 0.001567
## 947   2.51e-04 0.003367
## 948   2.83e-07 0.001541
## 949   1.08e-07 0.001178
## 950   2.01e-05 0.001793
## 951   1.00e-07 0.001456
```

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## 952  7.28e-06 0.001670
## 953  3.23e-05 0.001653
## 954  7.60e-05 0.001535
## 955  2.36e-04 0.002281
## 956  7.05e-06 0.002760
## 957  1.92e-04 0.001912
## 958  4.87e-04 0.004555
## 959  7.87e-05 0.001268
## 960  9.34e-06 0.001390
## 961  4.34e-05 0.009224    *
## 962  3.81e-06 0.001806
## 963  1.21e-05 0.002293
## 964  4.23e-04 0.002409
## 965  2.93e-06 0.003325
## 966  4.77e-04 0.004713
## 967  1.32e-04 0.006304
## 968  1.20e-04 0.002972
## 969  6.70e-07 0.001334
## 970  1.98e-04 0.002633
## 971  1.51e-05 0.001590
## 972  1.57e-03 0.007897
## 973  4.08e-08 0.003122
## 974  1.91e-05 0.002773
## 975  6.76e-04 0.002312
## 976  1.62e-05 0.002343
## 977  1.43e-04 0.001929
## 978  1.82e-06 0.002468
## 979  2.90e-03 0.005506    *
## 980  1.93e-04 0.002903
## 981  5.93e-05 0.003950
## 982  2.22e-06 0.016449    *
## 983  2.06e-04 0.002979
## 984  2.66e-04 0.002183
## 985  9.82e-05 0.002542
## 986  1.05e-05 0.001996
## 987  1.19e-04 0.001645
## 988  2.85e-04 0.002088
## 989  1.51e-04 0.001662
## 990  1.59e-04 0.007269
## 991  8.40e-04 0.005514
## 992  1.32e-05 0.001782
## 993  8.00e-04 0.009846
## 994  3.46e-05 0.002768
## 995  1.08e-05 0.003000
## 996  2.24e-05 0.003719
## 997  6.41e-04 0.008310
## 998  1.93e-06 0.006510
## 999  3.34e-05 0.004991
## 1000 3.74e-05 0.014998    *
## 1001 4.51e-04 0.003244
## 1002 3.87e-04 0.003670
## 1003 2.62e-04 0.004251
## 1004 1.11e-04 0.002587
## 1005 4.19e-05 0.017270    *
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## 1006 2.42e-04 0.002648
## 1007 3.18e-03 0.010208    *
## 1008 3.56e-04 0.005921
## 1009 2.35e-04 0.004300
## 1010 2.30e-04 0.004240
## 1011 8.48e-05 0.005469
## 1012 2.00e-04 0.003031
## 1013 5.42e-05 0.017874    *
## 1014 3.37e-05 0.002836
## 1015 1.26e-06 0.007578
## 1016 7.01e-06 0.008636    *
## 1017 9.66e-06 0.010589    *
## 1018 2.04e-04 0.003796
## 1019 6.49e-05 0.008262    *
## 1020 3.30e-05 0.000965
## 1021 6.59e-06 0.005742
## 1022 1.85e-03 0.058855    *
## 1023 7.44e-05 0.013175    *
## 1024 4.25e-05 0.002299
## 1025 1.91e-04 0.033959    *
## 1026 1.63e-04 0.005193
## 1027 1.21e-03 0.056552    *
## 1028 1.42e-04 0.003043
## 1029 7.13e-05 0.002214
## 1030 5.03e-06 0.006953
## 1031 7.70e-07 0.001654
## 1032 6.94e-05 0.002752
## 1033 4.63e-04 0.011080    *
## 1034 2.78e-06 0.004090
## 1035 3.85e-05 0.005860
## 1036 1.40e-06 0.011940    *
## 1037 1.16e-04 0.002282
## 1038 3.47e-05 0.006284
## 1039 5.24e-04 0.006327
## 1040 3.72e-04 0.003496
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## 1042 5.57e-05 0.007050
## 1043 6.43e-05 0.010160    *
## 1044 4.47e-05 0.006015
## 1045 6.39e-06 0.002345
## 1046 2.82e-05 0.003820
## 1047 1.46e-04 0.002004
## 1048 2.32e-03 0.003684    *
## 1049 4.34e-04 0.003324
## 1050 3.23e-05 0.011959    *
## 1051 4.15e-04 0.002808
## 1052 1.00e-04 0.003459
## 1053 1.02e-06 0.003368
## 1054 1.60e-04 0.001528
## 1055 9.28e-04 0.003735
## 1056 2.45e-04 0.002287
## 1057 8.06e-04 0.005422
## 1058 5.13e-03 0.008127    *
## 1059 4.01e-02 0.022144    *
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## 1060 7.45e-04 0.009909
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## 1062 1.36e-05 0.005799
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## 1064 3.01e-05 0.001637
## 1065 2.96e-04 0.004332
## 1066 2.80e-03 0.004120    *
## 1067 2.28e-05 0.004047
## 1068 1.10e-04 0.001778
## 1069 2.33e-04 0.002126
## 1070 8.98e-04 0.005179
## 1071 4.22e-04 0.003658
## 1072 2.69e-04 0.003692
## 1073 2.03e-03 0.008701
## 1074 3.34e-03 0.008453    *
## 1075 1.19e-04 0.001704
## 1076 2.20e-03 0.003927    *
## 1077 4.94e-06 0.001305
## 1078 1.43e-05 0.003356
## 1079 3.71e-04 0.002775
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## 1081 4.21e-05 0.003049
## 1082 4.26e-04 0.004865
## 1083 1.10e-04 0.001775
## 1084 5.96e-05 0.001449
## 1085 2.32e-05 0.000709
## 1086 4.89e-05 0.004228
## 1087 5.88e-04 0.002252
## 1088 1.56e-04 0.002227
## 1089 3.28e-05 0.002348
## 1090 7.94e-04 0.004185
## 1091 1.01e-03 0.004785
## 1092 2.14e-04 0.002240
## 1093 2.43e-04 0.001303
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## 1097 9.44e-05 0.004772
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## 1099 6.09e-05 0.004767
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## 1101 3.17e-07 0.005199
## 1102 1.75e-03 0.005311
## 1103 1.58e-06 0.005176
## 1104 3.32e-06 0.002553
## 1105 8.15e-06 0.009126    *
## 1106 2.10e-06 0.002220
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## 1108 5.29e-04 0.003122
## 1109 2.44e-05 0.002060
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## 1111 3.74e-07 0.002400
## 1112 3.00e-05 0.003209
## 1113 2.37e-05 0.004952
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## 1114 1.48e-04 0.004661
## 1115 2.74e-06 0.001567
## 1116 1.66e-06 0.001645
## 1117 6.30e-06 0.000738
## 1118 1.02e-05 0.001824
## 1119 6.78e-05 0.001960
## 1120 5.07e-04 0.002831
## 1121 3.88e-05 0.001113
## 1122 2.26e-07 0.003633
## 1123 1.85e-06 0.001107
## 1124 1.86e-05 0.001855
## 1125 2.24e-04 0.002921
## 1126 1.63e-05 0.002040
## 1127 1.67e-10 0.001235
## 1128 5.60e-07 0.001479
## 1129 5.61e-06 0.001657
## 1130 3.27e-04 0.001573
## 1131 1.49e-05 0.002303
## 1132 4.09e-07 0.000987
## 1133 1.33e-04 0.001969
## 1134 1.03e-06 0.001363
## 1135 1.39e-08 0.001259
## 1136 1.39e-04 0.002019
## 1137 1.22e-05 0.001509
## 1138 4.83e-04 0.002565
## 1139 1.98e-04 0.013453    *
## 1140 3.08e-09 0.003541
## 1141 1.94e-06 0.001383
## 1142 9.72e-06 0.001539
## 1143 1.41e-06 0.002084
## 1144 4.95e-05 0.001517
## 1145 2.17e-06 0.002463
## 1146 2.09e-06 0.001459
## 1147 1.11e-03 0.006725
## 1148 3.34e-04 0.003453
## 1149 1.05e-05 0.002690
## 1150 2.03e-05 0.002514
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## 1152 2.52e-06 0.000890
## 1153 1.37e-05 0.001606
## 1154 8.12e-06 0.001909
## 1155 1.13e-03 0.005292
## 1156 2.66e-05 0.001473
## 1157 1.39e-04 0.002522
## 1158 1.06e-05 0.001076
## 1159 8.46e-06 0.001864
## 1160 3.01e-04 0.001246
## 1161 2.00e-05 0.001598
## 1162 2.72e-05 0.002183
## 1163 4.73e-04 0.005271
## 1164 1.10e-05 0.001192
## 1165 2.39e-04 0.001789
## 1166 5.93e-05 0.002073
## 1167 1.30e-05 0.002274
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## 1168 3.56e-05 0.001594
## 1169 8.06e-06 0.001598
## 1170 4.57e-08 0.001792
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## 1172 1.82e-03 0.008996
## 1173 1.22e-05 0.001825
## 1174 1.77e-03 0.003462    *
## 1175 1.00e-04 0.001557
## 1176 2.27e-04 0.001518
## 1177 3.73e-04 0.004897
## 1178 4.02e-08 0.002346
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## 1182 2.13e-05 0.001474
## 1183 1.48e-04 0.003894
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## 1186 6.17e-06 0.001611
## 1187 4.44e-04 0.003590
## 1188 3.26e-06 0.001440
## 1189 2.37e-04 0.003927
## 1190 1.56e-04 0.002235
## 1191 7.84e-05 0.004202
## 1192 2.39e-04 0.003297
## 1193 5.32e-06 0.004189
## 1194 7.60e-05 0.001550
## 1195 7.09e-04 0.004057
## 1196 3.72e-04 0.001936
## 1197 6.31e-06 0.003631
## 1198 2.14e-05 0.005169
## 1199 3.50e-06 0.002101
## 1200 9.60e-05 0.002692
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## 1202 1.62e-04 0.009856    *
## 1203 2.65e-03 0.012180    *
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## 1207 5.16e-06 0.005247
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## 1209 2.38e-05 0.005331
## 1210 3.00e-05 0.002666
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## 1213 1.67e-05 0.002449
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## 1216 6.04e-04 0.004841
## 1217 9.87e-04 0.001751    *
## 1218 2.08e-05 0.007190
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## 1220 1.98e-07 0.003450
## 1221 1.06e-02 0.003421    *
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## 1222 8.25e-07 0.003780
## 1223 8.61e-04 0.003953
## 1224 1.85e-04 0.001904
## 1225 1.23e-04 0.005444
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## 1227 4.26e-06 0.002175
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## 1231 1.13e-04 0.002946
## 1232 4.96e-05 0.005651
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## 1238 1.04e-04 0.004884
## 1239 1.29e-03 0.008028
## 1240 2.39e-04 0.003477
## 1241 5.50e-04 0.003138
## 1242 2.06e-04 0.003111
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## 1244 5.08e-04 0.009047
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## 1247 9.10e-08 0.001498
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## 1249 4.20e-04 0.001913
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## 1253 3.81e-04 0.003466
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## 1255 2.15e-04 0.007555
## 1256 6.39e-04 0.004098
## 1257 6.12e-04 0.007101
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## 1264 2.20e-05 0.003373
## 1265 1.67e-04 0.000960
## 1266 1.35e-04 0.006254
## 1267 5.30e-06 0.002679
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## 1269 7.69e-07 0.001879
## 1270 2.99e-04 0.001431
## 1271 3.69e-06 0.002386
## 1272 4.51e-06 0.001305
## 1273 2.13e-04 0.003679
## 1274 1.47e-05 0.002063
## 1275 4.05e-05 0.000861
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## 1276 2.29e-03 0.005837
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## 1281 9.44e-04 0.002635
## 1282 6.12e-07 0.001984
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## 1284 5.00e-06 0.001273
## 1285 3.17e-05 0.002443
## 1286 1.70e-06 0.003063
## 1287 3.82e-04 0.002473
## 1288 3.56e-04 0.005940
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## 1290 1.33e-03 0.005563
## 1291 5.99e-05 0.004656
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## 1294 6.40e-07 0.000939
## 1295 4.28e-04 0.003647
## 1296 5.30e-04 0.002979
## 1297 4.32e-03 0.015257    *
## 1298 1.68e-04 0.002759
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## 1303 2.46e-06 0.001649
## 1304 2.58e-03 0.005788
## 1305 6.72e-04 0.002280
## 1306 2.66e-05 0.001673
## 1307 1.96e-06 0.001598
## 1308 1.92e-05 0.004939
## 1309 4.59e-05 0.002287
## 1310 3.94e-03 0.007298    *
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## 1312 2.70e-04 0.003572
## 1313 3.10e-04 0.002790
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## 1315 4.88e-05 0.001433
## 1316 3.57e-04 0.001126
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## 1324 1.38e-04 0.001736
## 1325 1.12e-04 0.000869
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## 1329 7.96e-05 0.002549
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## 1330 6.10e-04 0.001992
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## 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
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## 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
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## 1353 4.09e-05 0.002979
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## 1357 3.20e-04 0.008613
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## 1369 4.69e-05 0.001769
## 1370 7.21e-05 0.001466
## 1371 4.06e-05 0.001090
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## 1374 1.29e-06 0.006447
## 1375 4.19e-06 0.001965
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## 1384 1.42e-04 0.002010
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## 1432 4.97e-05 0.005339
## 1433 1.46e-05 0.002320
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## 1437 4.19e-05 0.005263
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## 1438 4.35e-06 0.002169
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## 1478 4.16e-05 0.003749
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## 1480 4.57e-06 0.003788
## 1481 4.48e-05 0.001544
## 1482 5.62e-05 0.002235
## 1483 1.41e-05 0.002603
## 1484 1.42e-04 0.001248
## 1485 2.17e-04 0.003802
## 1486 5.36e-07 0.002512
## 1487 2.03e-03 0.010992
## 1488 2.19e-05 0.002069
## 1489 4.28e-05 0.001969
## 1490 2.87e-09 0.075605    *
## 1491 1.99e-05 0.002040
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## 1492 1.35e-04 0.001087
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## 1496 8.99e-04 0.006068
## 1497 9.21e-03 0.006812    *
## 1498 9.03e-06 0.002139
## 1499 2.51e-04 0.003260
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## 1502 1.56e-04 0.002734
## 1503 1.19e-04 0.001650
## 1504 1.17e-03 0.003697
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## 1506 3.26e-04 0.002577
## 1507 8.22e-05 0.000979
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## 1510 2.32e-04 0.001700
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## 1512 1.91e-04 0.005269
## 1513 2.95e-03 0.007532
## 1514 1.35e-04 0.002561
## 1515 2.05e-06 0.003624
## 1516 3.56e-04 0.005712
## 1517 6.84e-04 0.002399
## 1518 8.85e-04 0.005198
## 1519 1.20e-03 0.003644
## 1520 6.25e-05 0.001210
## 1521 2.80e-05 0.002799
## 1522 5.86e-04 0.002928
## 1523 4.89e-04 0.003715
## 1524 9.04e-04 0.002819
## 1525 2.18e-04 0.001387
## 1526 2.89e-05 0.002319
## 1527 2.30e-04 0.002070
## 1528 2.95e-05 0.003121
## 1529 6.30e-05 0.005523
## 1530 2.35e-05 0.004692
## 1531 7.48e-06 0.001634
## 1532 1.77e-04 0.003274
## 1533 1.97e-04 0.002480
## 1534 2.20e-04 0.003010
## 1535 1.15e-04 0.002595
## 1536 1.14e-05 0.001916
## 1537 1.63e-04 0.001907
## 1538 8.51e-04 0.004065
## 1539 3.61e-05 0.002135
## 1540 1.26e-04 0.001943
## 1541 3.31e-06 0.002305
## 1542 7.57e-04 0.001608    *
## 1543 3.80e-04 0.001658
## 1544 1.10e-06 0.005623
## 1545 8.54e-05 0.002165
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## 1546 7.52e-05 0.002738
## 1547 1.26e-05 0.001164
## 1548 2.38e-03 0.005560
## 1549 3.74e-08 0.003209
## 1550 3.31e-05 0.002418
## 1551 4.61e-05 0.003100
## 1552 1.06e-03 0.004673
## 1553 2.07e-05 0.000587
## 1554 6.99e-04 0.016061    *
## 1555 9.55e-05 0.003499
## 1556 9.94e-06 0.001836
## 1557 7.15e-05 0.002243
## 1558 9.67e-06 0.001190
## 1559 5.05e-05 0.001944
## 1560 1.08e-03 0.002979
## 1561 1.87e-05 0.003262
## 1562 8.71e-05 0.002210
## 1563 9.64e-06 0.005485
## 1564 6.79e-06 0.001566
## 1565 4.23e-07 0.001413
## 1566 3.45e-05 0.001306
## 1567 7.00e-05 0.002401
## 1568 1.43e-03 0.003421    *
## 1569 1.42e-04 0.006016
## 1570 2.11e-04 0.001568
## 1571 4.44e-05 0.002521
## 1572 7.67e-04 0.005127
## 1573 8.98e-04 0.003053
## 1574 3.41e-04 0.007527
## 1575 4.41e-08 0.001288
## 1576 2.65e-05 0.001433
## 1577 9.77e-06 0.004087
## 1578 3.35e-06 0.002582
## 1579 1.94e-05 0.002103
## 1580 6.81e-04 0.002720
## 1581 6.27e-07 0.002479
## 1582 9.53e-05 0.002589
## 1583 3.99e-06 0.001370
## 1584 6.85e-04 0.004981
## 1585 6.34e-05 0.002399
## 1586 3.98e-06 0.003913
## 1587 2.94e-06 0.003509
## 1588 3.32e-05 0.001941
## 1589 1.42e-03 0.006006
## 1590 2.16e-05 0.001246
## 1591 5.25e-06 0.001606
## 1592 1.28e-05 0.000846
## 1593 7.27e-05 0.002114
## 1594 3.88e-05 0.004209
## 1595 5.45e-04 0.003770
## 1596 2.27e-04 0.005488
## 1597 1.77e-05 0.004967
## 1598 9.75e-07 0.001404
## 1599 7.61e-05 0.001007
```

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## 1600 4.24e-08 0.002515
## 1601 7.12e-05 0.010685    *
## 1602 6.45e-05 0.001880
## 1603 2.30e-05 0.001337
## 1604 1.35e-04 0.001444
## 1605 5.39e-05 0.001099
## 1606 2.29e-05 0.001155
## 1607 4.56e-05 0.001692
## 1608 5.35e-05 0.001432
## 1609 8.84e-07 0.000964
## 1610 3.85e-04 0.001324
## 1611 2.04e-06 0.001030
## 1612 5.37e-05 0.001086
## 1613 6.54e-06 0.001631
## 1614 2.96e-06 0.002917
## 1615 7.32e-06 0.001273
## 1616 8.62e-05 0.001504
## 1617 6.20e-06 0.004212
## 1618 3.13e-05 0.001211
## 1619 3.92e-08 0.001732
## 1620 4.32e-05 0.001797
## 1621 8.66e-04 0.003859
## 1622 5.31e-05 0.003838
## 1623 1.76e-04 0.001917
## 1624 1.64e-06 0.002163
## 1625 2.20e-04 0.002166
## 1626 4.55e-06 0.002469
## 1627 3.14e-05 0.001294
## 1628 4.16e-05 0.002439
## 1629 1.54e-04 0.001963
## 1630 2.61e-05 0.002444
## 1631 8.92e-05 0.002283
## 1632 8.34e-05 0.001091
## 1633 8.64e-04 0.021319    *
## 1634 1.93e-04 0.001647
## 1635 2.12e-04 0.003481
## 1636 5.45e-05 0.001910
## 1637 2.44e-05 0.001405
## 1638 3.00e-05 0.001607
## 1639 7.93e-05 0.001239
## 1640 1.67e-05 0.000877
## 1641 9.35e-05 0.001367
## 1642 4.80e-06 0.001138
## 1643 7.63e-04 0.004312
## 1644 1.03e-04 0.001135
## 1645 1.27e-05 0.001814
## 1646 1.28e-06 0.002077
## 1647 8.21e-08 0.001712
## 1648 1.71e-04 0.003017
## 1649 6.42e-05 0.001630
## 1650 4.68e-06 0.001493
## 1651 4.41e-05 0.001048
## 1652 1.36e-05 0.001960
## 1653 1.68e-06 0.001598
```

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## 1654 1.72e-05 0.001105
## 1655 1.54e-04 0.001260
## 1656 1.01e-03 0.003791
## 1657 5.29e-05 0.001734
## 1658 3.37e-04 0.001015
## 1659 9.36e-05 0.002051
## 1660 1.08e-04 0.001301
## 1661 1.98e-04 0.004202
## 1662 8.31e-05 0.001822
## 1663 2.62e-05 0.000864
## 1664 2.77e-08 0.003217
## 1665 2.96e-06 0.001659
## 1666 9.75e-05 0.002054
## 1667 2.07e-04 0.001555
## 1668 5.23e-06 0.004107
## 1669 2.78e-07 0.001855
## 1670 5.47e-06 0.002498
## 1671 1.22e-07 0.001096
## 1672 2.38e-05 0.001623
## 1673 5.16e-06 0.001666
## 1674 1.60e-05 0.000958
## 1675 3.47e-07 0.002307
## 1676 4.87e-06 0.001747
## 1677 8.75e-05 0.003267
## 1678 7.19e-06 0.003410
## 1679 1.38e-06 0.000763
## 1680 3.63e-06 0.001148
## 1681 9.34e-05 0.002484
## 1682 2.78e-04 0.003621
## 1683 7.25e-05 0.001569
## 1684 1.06e-03 0.008126
## 1685 1.18e-04 0.001820
## 1686 7.72e-04 0.002603
## 1687 3.39e-03 0.009166    *
## 1688 6.88e-05 0.003405
## 1689 4.27e-07 0.002502
## 1690 7.22e-05 0.001726
## 1691 2.63e-04 0.002561
## 1692 5.54e-04 0.002856
## 1693 9.64e-06 0.000810
## 1694 1.00e-04 0.003779
## 1695 9.44e-04 0.012668    *
## 1696 1.66e-05 0.001450
## 1697 3.96e-06 0.001352
## 1698 4.69e-06 0.002290
## 1699 2.63e-05 0.001433
## 1700 2.14e-06 0.001231
## 1701 3.38e-04 0.001311
## 1702 5.08e-05 0.001333
## 1703 1.61e-06 0.001131
## 1704 5.64e-07 0.001199
## 1705 4.76e-07 0.002521
## 1706 1.54e-05 0.001619
## 1707 6.41e-05 0.001564
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## 1708 1.42e-03 0.004177
## 1709 1.39e-05 0.001265
## 1710 5.21e-04 0.004706
## 1711 1.95e-05 0.002188
## 1712 5.15e-06 0.001356
## 1713 8.41e-06 0.001436
## 1714 4.89e-05 0.001423
## 1715 1.80e-05 0.001711
## 1716 6.59e-06 0.000766
## 1717 1.47e-05 0.001526
## 1718 8.34e-06 0.001971
## 1719 1.29e-05 0.002415
## 1720 1.91e-06 0.002403
## 1721 5.68e-10 0.001262
## 1722 1.20e-07 0.002201
## 1723 1.45e-04 0.009792    *
## 1724 1.04e-04 0.001336
## 1725 7.51e-06 0.001619
## 1726 2.43e-06 0.001161
## 1727 9.34e-07 0.001388
## 1728 9.14e-05 0.002205
## 1729 8.34e-06 0.001232
## 1730 7.61e-06 0.001821
## 1731 1.86e-07 0.001857
## 1732 2.54e-05 0.001054
## 1733 2.36e-06 0.001053
## 1734 7.98e-07 0.001601
## 1735 8.44e-06 0.002214
## 1736 4.32e-06 0.001867
## 1737 4.99e-05 0.001294
## 1738 8.47e-05 0.002158
## 1739 2.12e-07 0.000988
## 1740 2.35e-04 0.001853
## 1741 2.04e-05 0.002505
## 1742 7.96e-06 0.003100
## 1743 4.69e-04 0.002511
## 1744 1.29e-05 0.001931
## 1745 3.64e-05 0.001766
## 1746 2.89e-05 0.001983
## 1747 8.43e-05 0.007264
## 1748 1.33e-04 0.003411
## 1749 2.16e-05 0.000924
## 1750 4.03e-08 0.001713
## 1751 8.66e-05 0.001669
## 1752 6.01e-05 0.000982
## 1753 1.79e-04 0.003510
## 1754 2.00e-05 0.001060
## 1755 2.36e-05 0.000920
## 1756 9.42e-05 0.002867
## 1757 1.57e-05 0.001565
## 1758 2.44e-05 0.001350
## 1759 2.79e-05 0.001141
## 1760 3.35e-06 0.001399
## 1761 4.71e-06 0.001396
```

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## 1762 8.17e-07 0.001794
## 1763 2.16e-05 0.001358
## 1764 2.22e-04 0.002531
## 1765 4.09e-05 0.002394
## 1766 7.37e-06 0.002165
## 1767 1.72e-06 0.003520
## 1768 2.81e-05 0.001659
## 1769 3.93e-07 0.001687
## 1770 5.66e-08 0.001751
## 1771 2.06e-04 0.011213    *
## 1772 9.20e-06 0.000740
## 1773 4.05e-05 0.006808
## 1774 4.57e-04 0.004567
## 1775 1.20e-04 0.001149
## 1776 7.34e-07 0.001829
## 1777 8.67e-04 0.003841
## 1778 3.29e-06 0.002579
## 1779 2.29e-05 0.001323
## 1780 8.16e-05 0.002809
## 1781 6.19e-05 0.003227
## 1782 3.76e-04 0.004738
## 1783 8.55e-05 0.003178
## 1784 7.43e-05 0.003686
## 1785 5.09e-09 0.004368
## 1786 2.23e-05 0.001751
## 1787 1.02e-04 0.002773
## 1788 2.98e-05 0.005719
## 1789 9.13e-05 0.002610
## 1790 1.23e-06 0.003225
## 1791 2.87e-08 0.000914
## 1792 1.83e-04 0.001912
## 1793 2.46e-05 0.001118
## 1794 5.14e-05 0.007749
## 1795 3.83e-06 0.001499
## 1796 1.16e-03 0.003597
## 1797 6.82e-03 0.010177    *
## 1798 2.88e-05 0.002984
## 1799 7.48e-06 0.004086
## 1800 3.85e-05 0.001856
## 1801 3.13e-05 0.007148
## 1802 5.71e-05 0.003234
## 1803 5.04e-05 0.002007
## 1804 3.43e-05 0.004507
## 1805 3.32e-07 0.001149
## 1806 1.25e-09 0.005878
## 1807 1.62e-04 0.003795
## 1808 2.47e-06 0.005364
## 1809 3.50e-04 0.004105
## 1810 1.25e-04 0.002279
## 1811 1.57e-07 0.001699
## 1812 2.21e-04 0.005146
## 1813 1.83e-04 0.011883    *
## 1814 3.78e-06 0.000738
## 1815 5.60e-05 0.003987
```

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## 1816 2.46e-03 0.009516
## 1817 5.92e-03 0.039628    *
## 1818 2.41e-02 0.051570    *
## 1819 1.18e-05 0.003852
## 1820 1.22e-03 0.009642
## 1821 3.52e-04 0.005251
## 1822 1.14e-04 0.003218
## 1823 7.25e-05 0.004032
## 1824 4.02e-07 0.008079    *
## 1825 2.56e-05 0.005538
## 1826 1.31e-03 0.009812
## 1827 1.30e-03 0.003795
## 1828 3.62e-06 0.008088    *
## 1829 3.45e-04 0.004174
## 1830 3.68e-04 0.005929
## 1831 1.40e-03 0.008479
## 1832 8.08e-05 0.003249
## 1833 5.08e-04 0.005300
## 1834 2.96e-04 0.005851
## 1835 3.03e-04 0.002847
## 1836 8.26e-06 0.001011
## 1837 3.10e-07 0.002784
## 1838 1.92e-05 0.002223
## 1839 9.62e-06 0.003510
## 1840 6.78e-06 0.020270    *
## 1841 5.12e-05 0.001053
## 1842 4.26e-05 0.002101
## 1843 7.57e-05 0.015948    *
## 1844 9.33e-05 0.011732    *
## 1845 8.73e-05 0.001005
## 1846 6.63e-04 0.011260    *
## 1847 2.24e-05 0.002131
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## 1849 9.10e-03 0.030447    *
## 1850 4.22e-05 0.003451
## 1851 1.39e-06 0.001274
## 1852 6.50e-05 0.002221
## 1853 6.53e-04 0.002648
## 1854 1.56e-05 0.002703
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## 1856 1.04e-03 0.005005
## 1857 6.82e-09 0.003071
## 1858 1.10e-03 0.002774    *
## 1859 3.13e-04 0.001630
## 1860 4.43e-05 0.001582
## 1861 2.53e-05 0.004009
## 1862 1.13e-05 0.002188
## 1863 1.40e-04 0.007024
## 1864 3.65e-06 0.003068
## 1865 1.51e-05 0.003729
## 1866 2.56e-03 0.007983
## 1867 4.28e-07 0.001990
## 1868 8.46e-03 0.013236    *
## 1869 4.50e-07 0.002067
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## 1870 4.12e-06 0.004604
## 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
## 1911 2.40e-04 0.004100
## 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
## 1921 2.59e-04 0.003100
## 1922 5.61e-04 0.003738
## 1923 7.50e-04 0.003867
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## 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
## 1933 1.33e-04 0.008981    *
## 1934 2.28e-05 0.001311
## 1935 6.15e-05 0.003071
## 1936 2.25e-04 0.002295
## 1937 1.64e-05 0.001975
## 1938 3.35e-04 0.004469
## 1939 2.84e-04 0.003776
## 1940 7.22e-05 0.002664
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## 1943 1.82e-06 0.002308
## 1944 3.33e-06 0.002258
## 1945 9.73e-04 0.042885    *
## 1946 3.53e-05 0.008900    *
## 1947 1.68e-04 0.004930
## 1948 3.69e-04 0.005455
## 1949 3.32e-04 0.002784
## 1950 2.28e-05 0.001246
## 1951 2.31e-06 0.002350
## 1952 9.97e-06 0.002292
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## 1954 1.10e-04 0.007142
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## 1956 2.52e-04 0.002445
## 1957 2.76e-06 0.003208
## 1958 1.27e-02 0.016596    *
## 1959 3.80e-04 0.002184
## 1960 1.47e-04 0.002736
## 1961 1.23e-04 0.003206
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## 1963 6.91e-05 0.001615
## 1964 1.57e-05 0.003791
## 1965 1.10e-02 0.016565    *
## 1966 4.82e-04 0.004291
## 1967 2.72e-04 0.003096
## 1968 1.27e-05 0.010787    *
## 1969 1.15e-03 0.003783
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## 1972 1.75e-05 0.003955
## 1973 4.51e-04 0.004990
## 1974 2.60e-05 0.004554
## 1975 8.20e-05 0.003134
## 1976 6.58e-05 0.003392
## 1977 4.41e-05 0.002657
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## 1978 8.63e-05 0.001966
## 1979 1.65e-02 0.032810    *
## 1980 7.19e-05 0.004262
## 1981 7.44e-04 0.004683
## 1982 1.59e-05 0.002236
## 1983 5.04e-05 0.001587
## 1984 4.19e-04 0.006059
## 1985 4.51e-05 0.005831
## 1986 5.04e-07 0.001026
## 1987 3.74e-06 0.000796
## 1988 4.09e-09 0.002814
## 1989 5.82e-04 0.002662
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## 1991 2.15e-04 0.001406
## 1992 1.60e-06 0.007273
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## 1995 3.00e-04 0.004152
## 1996 9.26e-09 0.005398
## 1997 8.58e-05 0.002440
## 1998 7.93e-06 0.001827
## 1999 2.76e-04 0.001523
## 2000 8.10e-05 0.003682
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## 2005 5.48e-04 0.001721
## 2006 4.63e-06 0.002245
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## 2008 7.31e-05 0.002198
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## 2010 4.57e-04 0.001355
## 2011 3.35e-04 0.002200
## 2012 1.52e-03 0.004826
## 2013 1.60e-05 0.001988
## 2014 9.90e-05 0.002935
## 2015 1.10e-04 0.000972
## 2016 1.98e-03 0.003742    *
## 2017 2.19e-05 0.001405
## 2018 2.13e-04 0.001118
## 2019 1.16e-04 0.001445
## 2020 8.94e-05 0.004339
## 2021 8.09e-04 0.005062
## 2022 1.63e-03 0.003760    *
## 2023 4.12e-07 0.004989
## 2024 1.81e-05 0.005385
## 2025 1.72e-06 0.002064
## 2026 2.75e-05 0.005653
## 2027 1.96e-03 0.005383
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## 2029 2.39e-04 0.001008
## 2030 3.44e-05 0.003875
## 2031 7.38e-05 0.003408
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## 2032 1.54e-06 0.002249
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## 2034 2.84e-07 0.005193
## 2035 7.68e-04 0.006678
## 2036 1.16e-03 0.002206    *
## 2037 3.01e-06 0.000982
## 2038 7.71e-05 0.001040
## 2039 1.97e-05 0.004605
## 2040 1.80e-03 0.005500
## 2041 5.75e-07 0.002241
## 2042 6.63e-06 0.005253
## 2043 4.71e-04 0.002116
## 2044 6.94e-05 0.001876
## 2045 2.09e-05 0.002411
## 2046 4.13e-04 0.001596
## 2047 1.64e-03 0.005997
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## 2050 5.45e-04 0.004943
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## 2058 2.33e-06 0.001450
## 2059 2.58e-04 0.004891
## 2060 5.34e-04 0.005257
## 2061 2.05e-04 0.002829
## 2062 2.08e-04 0.002785
## 2063 1.06e-07 0.004674
## 2064 2.03e-04 0.007196
## 2065 7.03e-04 0.002081
## 2066 1.37e-02 0.015791    *
## 2067 1.81e-03 0.008161
## 2068 3.39e-08 0.005445
## 2069 6.29e-04 0.002304
## 2070 3.77e-05 0.001480
## 2071 8.66e-04 0.003157
## 2072 4.50e-04 0.003009
## 2073 1.62e-05 0.002546
## 2074 1.54e-04 0.004465
## 2075 1.06e-04 0.002677
## 2076 6.01e-04 0.001761
## 2077 2.81e-04 0.003033
## 2078 6.10e-04 0.010341
## 2079 2.08e-03 0.008988
## 2080 1.55e-03 0.004269
## 2081 2.43e-05 0.003047
## 2082 6.85e-05 0.001683
## 2083 4.55e-07 0.006426
## 2084 1.80e-07 0.002562
## 2085 1.27e-05 0.002420
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## 2086 8.67e-05 0.004414
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## 2088 3.41e-07 0.002274
## 2089 1.39e-04 0.004123
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## 2091 1.16e-05 0.002322
## 2092 6.77e-07 0.002104
## 2093 1.47e-06 0.001689
## 2094 2.41e-05 0.001935
## 2095 5.00e-05 0.002010
## 2096 2.09e-04 0.001646
## 2097 1.27e-05 0.001492
## 2098 4.63e-05 0.003203
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## 2101 1.46e-04 0.008307
## 2102 1.24e-05 0.001552
## 2103 2.16e-05 0.001634
## 2104 5.96e-07 0.001930
## 2105 2.50e-05 0.001091
## 2106 2.13e-04 0.004166
## 2107 2.00e-04 0.002494
## 2108 5.94e-05 0.003022
## 2109 1.44e-06 0.001577
## 2110 1.43e-06 0.000767
## 2111 5.72e-04 0.003243
## 2112 3.01e-04 0.006172
## 2113 1.40e-04 0.002670
## 2114 2.21e-04 0.003745
## 2115 2.00e-05 0.002376
## 2116 7.56e-04 0.005593
## 2117 3.27e-04 0.004118
## 2118 1.02e-05 0.002685
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## 2124 4.09e-06 0.002134
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## 2126 5.37e-06 0.000910
## 2127 1.27e-04 0.001781
## 2128 6.31e-05 0.006787
## 2129 4.03e-05 0.003651
## 2130 6.56e-04 0.003836
## 2131 3.28e-07 0.001759
## 2132 5.31e-05 0.003899
## 2133 7.19e-08 0.001867
## 2134 2.47e-05 0.003583
## 2135 3.68e-04 0.001870
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## 2137 5.94e-05 0.001274
## 2138 4.67e-05 0.001443
## 2139 3.74e-04 0.005273
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## 2145 7.54e-04 0.005602
## 2146 2.88e-06 0.002554
## 2147 6.19e-05 0.004141
## 2148 1.60e-04 0.002367
## 2149 1.93e-05 0.006135
## 2150 3.15e-07 0.002464
## 2151 1.16e-04 0.001551
## 2152 1.19e-04 0.001025
## 2153 3.89e-05 0.006569
## 2154 2.69e-04 0.004908
## 2155 7.76e-04 0.004761
## 2156 2.11e-04 0.002054
## 2157 3.44e-03 0.007018    *
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## 2159 2.93e-05 0.002554
## 2160 4.31e-04 0.009351
## 2161 8.44e-04 0.006405
## 2162 1.70e-05 0.002870
## 2163 1.41e-04 0.003319
## 2164 5.90e-04 0.006642
## 2165 3.74e-04 0.002406
## 2166 4.26e-04 0.003669
## 2167 8.06e-04 0.004272
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## 2169 4.96e-05 0.002120
## 2170 3.99e-05 0.001321
## 2171 2.70e-04 0.003331
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## 2173 8.33e-05 0.002193
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## 2175 5.50e-05 0.001506
## 2176 4.36e-03 0.006966    *
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## 2178 6.72e-04 0.004265
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## 2180 3.07e-04 0.004018
## 2181 1.16e-04 0.001607
## 2182 7.08e-06 0.000818
## 2183 2.12e-04 0.001073
## 2184 2.77e-04 0.001970
## 2185 1.61e-04 0.001259
## 2186 1.17e-06 0.001063
## 2187 8.30e-05 0.001815
## 2188 4.87e-05 0.000715
## 2189 3.65e-06 0.003833
## 2190 1.20e-04 0.001778
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## 2192 2.24e-06 0.002484
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## 2202 7.58e-07 0.001614
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## 2212 9.76e-07 0.001839
## 2213 8.59e-06 0.007831
## 2214 1.84e-06 0.001083
## 2215 8.04e-05 0.001296
## 2216 1.54e-04 0.001779
## 2217 1.05e-04 0.002359
## 2218 5.17e-06 0.001964
## 2219 3.45e-05 0.000995
## 2220 1.23e-04 0.001650
## 2221 9.15e-06 0.000982
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## 2223 1.25e-05 0.001389
## 2224 4.13e-06 0.001168
## 2225 2.40e-06 0.001637
## 2226 1.40e-07 0.000794
## 2227 1.12e-04 0.000999
## 2228 4.00e-06 0.001403
## 2229 2.00e-04 0.001353
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## 2231 2.40e-07 0.000896
## 2232 2.23e-04 0.002296
## 2233 7.33e-07 0.001578
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## 2237 9.80e-05 0.000848
## 2238 4.98e-04 0.001769
## 2239 4.41e-05 0.006669
## 2240 1.50e-05 0.001412
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## 2242 3.11e-05 0.001774
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## 2247 9.72e-07 0.001864
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## 2248 5.06e-06 0.002423
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## 2253 4.20e-05 0.001732
## 2254 1.74e-04 0.002822
## 2255 9.83e-05 0.000879
## 2256 3.68e-05 0.001289
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## 2258 7.09e-06 0.001912
## 2259 7.44e-06 0.002295
## 2260 9.43e-06 0.001386
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## 2263 5.67e-06 0.003112
## 2264 3.96e-05 0.001822
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## 2267 6.32e-04 0.002011
## 2268 2.38e-04 0.001979
## 2269 2.56e-04 0.002010
## 2270 7.66e-04 0.003171
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## 2272 1.22e-04 0.003058
## 2273 1.35e-06 0.001297
## 2274 1.17e-06 0.001077
## 2275 4.31e-05 0.001388
## 2276 1.16e-04 0.001090
## 2277 3.05e-04 0.003092
## 2278 4.40e-04 0.004888
## 2279 3.29e-04 0.002422
## 2280 2.81e-05 0.001492
## 2281 9.73e-05 0.001469
## 2282 2.38e-04 0.002837
## 2283 2.76e-04 0.006762
## 2284 5.29e-04 0.005761
## 2285 1.28e-04 0.006021
## 2286 1.54e-03 0.008621
## 2287 1.45e-03 0.011343
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## 2294 3.02e-05 0.002021
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## 2297 6.72e-04 0.004379
## 2298 1.77e-04 0.003210
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## 2300 4.78e-05 0.002244
## 2301 1.05e-04 0.004316
```

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## 2306 9.02e-04 0.011222
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## 2308 1.94e-05 0.002678
## 2309 8.85e-05 0.006050
## 2310 1.05e-05 0.005173
## 2311 2.35e-04 0.004847
## 2312 5.56e-04 0.002452
## 2313 5.45e-05 0.028052    *
## 2314 6.61e-04 0.097442    *
## 2315 4.90e-03 0.071611    *
## 2316 6.62e-04 0.042027    *
## 2317 1.01e-04 0.001310
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## 2320 1.06e-04 0.003355
## 2321 4.78e-04 0.002829
## 2322 9.83e-05 0.002740
## 2323 1.62e-03 0.002613    *
## 2324 6.77e-04 0.004434
## 2325 5.11e-05 0.002018
## 2326 4.18e-04 0.002342
## 2327 1.54e-04 0.003589
## 2328 8.93e-04 0.001771    *
## 2329 4.11e-04 0.002228
## 2330 4.58e-04 0.003454
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## 2332 6.07e-05 0.001478
## 2333 1.46e-04 0.003930
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## 2350 4.67e-04 0.004776
## 2351 1.60e-03 0.004056
## 2352 2.06e-04 0.002772
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## 2354 2.95e-04 0.002953
## 2355 1.85e-03 0.003922    *
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## 2356 4.84e-05 0.001845
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## 2395 3.12e-03 0.011869    *
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## 2397 2.21e-04 0.004244
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## 2410 7.00e-06 0.004212
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## 2428 1.52e-04 0.002596
## 2429 2.99e-05 0.002192
## 2430 1.40e-04 0.003079
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## 2443 3.63e-04 0.004029
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## 2447 1.47e-04 0.004750
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## 2452 3.35e-05 0.018750    *
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## 2462 1.01e-05 0.002714
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## 2464 7.51e-04 0.003703
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## 2512 2.57e-05 0.001274
## 2513 1.09e-05 0.001492
## 2514 1.58e-05 0.002070
## 2515 9.76e-05 0.001180
## 2516 4.71e-05 0.002406
## 2517 7.08e-05 0.002317
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## 2549 5.10e-03 0.008979   *
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## 2560 5.32e-04 0.008397
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## 2566 5.13e-05 0.006440
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## 2594 2.85e-03 0.016680     *
## 2595 9.36e-07 0.001373
## 2596 3.07e-03 0.006743     *
## 2597 5.94e-04 0.005291
## 2598 4.56e-03 0.010239     *
## 2599 9.19e-05 0.004972
## 2600 4.58e-03 0.004984     *
## 2601 4.56e-04 0.005534
## 2602 1.59e-03 0.006085
## 2603 9.59e-05 0.004409
## 2604 1.29e-06 0.001809
## 2605 2.10e-04 0.001509
## 2606 2.23e-04 0.002503
## 2607 5.00e-06 0.003773
## 2608 6.54e-05 0.004672
## 2609 2.91e-06 0.001474
## 2610 6.34e-04 0.002348
## 2611 3.50e-04 0.005079
## 2612 1.08e-06 0.003120
## 2613 4.43e-05 0.001657
## 2614 1.02e-07 0.001733
## 2615 1.92e-05 0.004183
## 2616 1.07e-04 0.001502
## 2617 4.29e-04 0.006168
## 2618 7.22e-04 0.009667
## 2619 1.72e-05 0.001212
## 2620 2.68e-04 0.001665
## 2621 1.22e-05 0.003321
## 2622 4.97e-05 0.002151
## 2623 7.58e-07 0.001470
## 2624 1.30e-04 0.004234
## 2625 1.65e-05 0.003042
```

```
## 2626 6.33e-03 0.007342    *
## 2627 9.14e-04 0.007057
## 2628 8.00e-05 0.003797
## 2629 1.46e-04 0.002377
## 2630 9.41e-06 0.003983
## 2631 4.70e-04 0.006124
## 2632 5.12e-07 0.003513
## 2633 7.48e-04 0.006443
## 2634 3.15e-06 0.001538
## 2635 5.21e-05 0.002235
## 2636 1.05e-03 0.004400
## 2637 3.46e-03 0.003486    *
## 2638 1.04e-05 0.002400
## 2639 1.63e-04 0.005359
## 2640 6.15e-04 0.004778
## 2641 4.88e-05 0.003118
## 2642 3.59e-03 0.005514    *
## 2643 8.63e-04 0.006605
## 2644 6.79e-06 0.003326
## 2645 1.87e-05 0.004769
## 2646 1.72e-02 0.011532    *
## 2647 1.85e-04 0.002629
## 2648 2.23e-05 0.001678
## 2649 1.95e-07 0.003158
## 2650 9.29e-05 0.005461
## 2651 1.25e-05 0.003633
## 2652 3.84e-04 0.005499
## 2653 5.16e-06 0.001261
## 2654 2.07e-06 0.004160
## 2655 7.63e-04 0.002701
## 2656 5.72e-05 0.003281
## 2657 1.98e-03 0.008912
## 2658 1.85e-04 0.006352
## 2659 7.77e-03 0.006780    *
## 2660 7.80e-07 0.006340
## 2661 5.28e-04 0.001611
## 2662 6.44e-05 0.002935
## 2663 9.33e-05 0.003508
## 2664 1.01e-04 0.001435
## 2665 2.45e-04 0.004003
## 2666 1.33e-05 0.004346
## 2667 1.33e-05 0.004072
## 2668 6.18e-04 0.004816
## 2669 2.10e-03 0.004002    *
## 2670 3.20e-04 0.002723
## 2671 7.92e-05 0.009123    *
## 2672 1.18e-05 0.006875
## 2673 6.43e-04 0.002662
## 2674 8.80e-03 0.010903    *
## 2675 3.47e-06 0.001180
## 2676 8.75e-08 0.003342
## 2677 7.40e-05 0.005178
## 2678 7.91e-07 0.002271
## 2679 1.50e-06 0.001602
```

```
## 2680 2.51e-04 0.006029
## 2681 6.67e-05 0.002920
## 2682 1.97e-03 0.014545    *
## 2683 6.89e-09 0.005204
## 2684 3.25e-03 0.010846    *
## 2685 9.21e-08 0.001635
## 2686 7.20e-04 0.005720
## 2687 4.37e-05 0.001153
## 2688 2.13e-04 0.007974
## 2689 7.34e-04 0.011828    *
## 2690 5.30e-06 0.001376
## 2691 2.63e-05 0.005244
## 2692 2.10e-08 0.001630
## 2693 3.24e-05 0.001682
## 2694 7.68e-05 0.001586
## 2695 8.31e-04 0.008205
## 2696 4.18e-03 0.007398    *
## 2697 5.28e-05 0.004948
## 2698 1.59e-08 0.001010
## 2699 3.93e-04 0.015589    *
## 2700 1.59e-04 0.004456
## 2701 1.04e-05 0.006745
## 2702 1.50e-05 0.001254
## 2703 7.14e-05 0.003137
## 2704 1.00e-05 0.001193
## 2705 1.23e-05 0.001906
## 2706 4.00e-04 0.010113    *
## 2707 5.57e-06 0.002484
## 2708 8.59e-05 0.002033
## 2709 1.60e-07 0.002710
## 2710 4.75e-04 0.002448
## 2711 3.69e-04 0.008624
## 2712 9.14e-05 0.007585
## 2713 7.98e-05 0.001527
## 2714 2.48e-01 0.084681    *
## 2715 3.38e-06 0.005215
## 2716 4.22e-03 0.015649    *
## 2717 3.90e-06 0.001809
## 2718 2.85e-03 0.013416    *
## 2719 1.73e-04 0.003759
## 2720 3.75e-03 0.010197    *
## 2721 1.64e-04 0.004911
## 2722 8.81e-05 0.004046
## 2723 4.83e-04 0.005195
## 2724 7.08e-03 0.027806    *
## 2725 1.32e-07 0.003963
## 2726 7.34e-03 0.010818    *
## 2727 9.40e-03 0.010551    *
## 2728 1.17e-05 0.005213
## 2729 6.68e-05 0.019287    *
## 2730 3.06e-04 0.008213
## 2731 2.07e-04 0.002943
## 2732 7.95e-04 0.006544
## 2733 4.53e-04 0.016072    *
```

```
## 2734 2.56e-03 0.011503
## 2735 9.33e-08 0.002997
## 2736 9.19e-04 0.003703
## 2737 3.81e-05 0.005248
## 2738 1.08e-06 0.003885
## 2739 7.86e-05 0.002025
## 2740 1.44e-05 0.005946
## 2741 2.66e-03 0.010400
## 2742 7.41e-05 0.001631
## 2743 3.03e-05 0.003414
## 2744 1.83e-03 0.009937
## 2745 1.91e-06 0.003316
## 2746 3.62e-04 0.003814
## 2747 1.65e-04 0.010091    *
## 2748 2.30e-05 0.003081
## 2749 1.19e-03 0.009157
## 2750 2.95e-05 0.002012
## 2751 2.67e-04 0.005983
## 2752 8.78e-06 0.001743
## 2753 1.40e-05 0.003191
## 2754 2.07e-04 0.001090
## 2755 4.29e-05 0.001019
## 2756 2.00e-05 0.001269
## 2757 1.05e-03 0.006452
## 2758 8.61e-07 0.000751
## 2759 1.19e-03 0.009962
## 2760 1.56e-04 0.004533
## 2761 1.72e-04 0.004805
## 2762 6.61e-05 0.002321
## 2763 4.46e-05 0.001178
## 2764 8.93e-05 0.005406
## 2765 9.71e-05 0.002927
## 2766 1.00e-04 0.004172
## 2767 2.70e-05 0.003444
## 2768 5.53e-07 0.000729
## 2769 3.35e-05 0.003194
## 2770 1.36e-04 0.002438
## 2771 9.89e-04 0.006320
## 2772 4.99e-05 0.001253
## 2773 5.59e-05 0.001779
## 2774 7.36e-05 0.006594
## 2775 2.27e-03 0.007693
## 2776 4.00e-04 0.005954
## 2777 7.95e-05 0.006132
## 2778 6.59e-07 0.002395
## 2779 4.49e-07 0.002014
## 2780 3.35e-05 0.004282
## 2781 1.14e-04 0.004159
## 2782 4.24e-04 0.002115
## 2783 1.14e-05 0.008176    *
## 2784 1.39e-05 0.003196
## 2785 2.34e-03 0.019064    *
## 2786 1.94e-05 0.003116
## 2787 2.70e-04 0.002459
```

```
## 2788 7.26e-04 0.002736
## 2789 1.51e-03 0.003399     *
## 2790 7.33e-04 0.019507     *
## 2791 1.15e-05 0.006701
## 2792 3.70e-05 0.002856
## 2793 9.47e-06 0.004424
## 2794 4.97e-04 0.003978
## 2795 5.15e-04 0.004251
## 2796 3.33e-04 0.004146
## 2797 2.16e-04 0.004460
## 2798 3.31e-04 0.005480
## 2799 1.23e-04 0.003456
## 2800 3.45e-04 0.006461
## 2801 1.70e-04 0.002317
## 2802 5.34e-04 0.002011
## 2803 2.49e-03 0.009996
## 2804 2.12e-04 0.004384
## 2805 4.86e-04 0.004103
## 2806 2.19e-07 0.002674
## 2807 1.33e-05 0.002139
## 2808 5.07e-04 0.004435
## 2809 2.86e-03 0.003837     *
## 2810 5.32e-04 0.001719
## 2811 3.00e-03 0.006225     *
## 2812 4.11e-04 0.002729
## 2813 2.54e-05 0.002251
## 2814 2.84e-04 0.006193
## 2815 7.12e-05 0.001415
## 2816 1.13e-05 0.002307
## 2817 2.35e-05 0.001421
## 2818 3.21e-05 0.001408
## 2819 7.61e-04 0.002421
## 2820 5.08e-05 0.005069
## 2821 5.15e-05 0.003450
## 2822 1.13e-03 0.004426
## 2823 2.81e-05 0.003608
## 2824 1.34e-03 0.005545
## 2825 5.38e-04 0.003100
## 2826 2.71e-05 0.014077     *
## 2827 1.72e-04 0.004606
## 2828 1.06e-05 0.001876
## 2829 6.58e-05 0.002583
## 2830 5.77e-05 0.001780
## 2831 2.17e-04 0.001626
## 2832 6.00e-06 0.001276
## 2833 6.42e-08 0.001289
## 2834 4.14e-04 0.006505
## 2835 1.49e-03 0.005912
## 2836 4.18e-05 0.000897
## 2837 4.22e-07 0.001410
## 2838 9.94e-05 0.004328
## 2839 1.39e-04 0.003441
## 2840 1.20e-04 0.001825
## 2841 8.61e-05 0.004347
```

```
## 2842 7.91e-04 0.001835    *
## 2843 5.88e-05 0.003994
## 2844 1.71e-04 0.004816
## 2845 7.40e-04 0.005108
## 2846 6.60e-05 0.004870
## 2847 5.35e-06 0.001026
## 2848 2.63e-06 0.001233
## 2849 3.66e-05 0.001926
## 2850 1.35e-06 0.001525
## 2851 1.67e-04 0.001353
## 2852 2.08e-06 0.002676
## 2853 8.93e-05 0.002018
## 2854 2.11e-06 0.001228
## 2855 1.42e-04 0.001331
## 2856 8.97e-06 0.001573
## 2857 5.55e-05 0.002777
## 2858 9.23e-04 0.001934    *
## 2859 7.90e-06 0.001074
## 2860 1.15e-04 0.007009
## 2861 1.06e-04 0.002166
## 2862 2.58e-05 0.001244
## 2863 5.49e-07 0.001523
## 2864 1.01e-03 0.008116
## 2865 3.13e-08 0.002075
## 2866 1.05e-06 0.001556
## 2867 3.72e-05 0.001644
## 2868 5.91e-06 0.001671
## 2869 4.88e-05 0.001332
## 2870 1.46e-05 0.006837
## 2871 2.02e-05 0.001383
## 2872 3.45e-06 0.005279
## 2873 2.96e-06 0.001921
## 2874 1.21e-05 0.002960
## 2875 1.30e-07 0.001808
## 2876 1.77e-04 0.003632
## 2877 5.99e-05 0.001101
## 2878 1.72e-04 0.002948
## 2879 1.57e-05 0.001540
## 2880 4.20e-05 0.005851
## 2881 1.10e-04 0.002744
## 2882 6.54e-06 0.003156
## 2883 3.88e-06 0.002260
## 2884 4.27e-07 0.001587
## 2885 2.49e-05 0.001606
## 2886 9.04e-05 0.001813
## 2887 7.65e-05 0.001642
## 2888 1.27e-05 0.002531
## 2889 1.65e-04 0.001368
## 2890 1.41e-04 0.001831
## 2891 3.71e-05 0.001585
## 2892 8.76e-05 0.003395
## 2893 1.98e-04 0.001889
## 2894 2.43e-06 0.001039
## 2895 8.44e-07 0.001009
```

```
## 2896 2.06e-06 0.001461
## 2897 2.85e-05 0.001863
## 2898 4.53e-05 0.000977
## 2899 8.19e-05 0.002709
## 2900 1.96e-05 0.001508
## 2901 1.78e-05 0.005029
## 2902 9.01e-04 0.006093
## 2903 3.98e-04 0.002764
## 2904 1.33e-06 0.001080
## 2905 2.11e-05 0.001276
## 2906 2.51e-06 0.001409
## 2907 3.53e-06 0.001749
## 2908 2.66e-05 0.002621
## 2909 1.19e-06 0.001782
## 2910 6.77e-04 0.002265
## 2911 6.17e-05 0.002241
## 2912 1.64e-05 0.001061
## 2913 8.10e-05 0.001330
## 2914 1.01e-04 0.002217
## 2915 4.49e-05 0.001560
## 2916 7.24e-05 0.001286
## 2917 3.47e-08 0.002290
## 2918 5.95e-05 0.001904
## 2919 2.18e-05 0.002568
## 2920 7.70e-05 0.001428
## 2921 3.89e-06 0.001216
## 2922 5.36e-04 0.001423    *
## 2923 3.96e-05 0.001360
## 2924 8.18e-05 0.003889
## 2925 8.14e-05 0.000830
## 2926 2.15e-05 0.001715
## 2927 2.21e-06 0.002519
## 2928 4.61e-04 0.004389
## 2929 1.38e-07 0.001118
## 2930 1.05e-04 0.002331
## 2931 4.91e-08 0.002723
## 2932 1.18e-05 0.001993
## 2933 3.27e-04 0.002221
## 2934 1.09e-04 0.001300
## 2935 2.16e-05 0.002327
## 2936 2.05e-04 0.002780
## 2937 6.43e-05 0.002130
## 2938 2.03e-07 0.001141
## 2939 1.15e-04 0.001534
## 2940 2.54e-07 0.001347
## 2941 9.19e-07 0.003469
## 2942 1.36e-04 0.001236
## 2943 3.69e-05 0.001301
## 2944 1.72e-05 0.002284
## 2945 5.36e-06 0.003314
## 2946 1.44e-04 0.001618
## 2947 2.11e-05 0.001986
## 2948 7.69e-04 0.003690
## 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:

```r
# 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) %>%
```

```r
  na.omit()

step_no_282 <- update(stepwise_model, . ~ ., data = step_model_no_282)
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      3Q     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          0.228536   0.007592  30.102  < 2e-16 ***
## poverty_percent         1.045635   0.118358   8.834  < 2e-16 ***
## median_age_male        -0.214490   0.085989  -2.494  0.01267 *
## pct_unemployed16_over   0.750476   0.151124   4.966 7.21e-07 ***
## pct_white               0.084336   0.034622   2.436  0.01491 *
## pct_asian              -0.587738   0.166433  -3.531  0.00042 ***
## pct_other_race         -0.920930   0.118468  -7.774 1.04e-14 ***
## pct_married_households -0.224288   0.085471  -2.624  0.00873 **
## pct_upto_hs18_24        0.385467   0.037529  10.271  < 2e-16 ***
## pct_with_coverage      -0.215951   0.098701  -2.188  0.02875 *
## income_cat             -4.039980   1.490114  -2.711  0.00674 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 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
```

```r
# 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)
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|)
## (Intercept)            65.423198  11.615333   5.632 1.94e-08 ***
## incidence_rate          0.227187   0.007572  30.002  < 2e-16 ***
## poverty_percent         1.073476   0.118117   9.088  < 2e-16 ***
## median_age_male        -0.212629   0.085703  -2.481 0.013155 *
## pct_unemployed16_over   0.820282   0.151376   5.419 6.47e-08 ***
## pct_white               0.091233   0.034539   2.641 0.008297 **
## pct_asian              -0.583348   0.165881  -3.517 0.000443 ***
## pct_other_race         -0.900209   0.118158  -7.619 3.40e-14 ***
## pct_married_households -0.211546   0.085231  -2.482 0.013117 *
## pct_upto_hs18_24        0.382276   0.037410  10.218  < 2e-16 ***
## pct_with_coverage      -0.188060   0.098557  -1.908 0.056468 .
## income_cat             -4.075167   1.485162  -2.744 0.006107 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 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)
```