

Drone Sentiment Analysis

Quarto

Quarto enables you to weave together content and executable code into a finished document. To learn more about Quarto see <https://quarto.org>.

```
# Basic
library(tidyverse)

-- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
v dplyr      1.1.2      v readr      2.1.4
v forcats    1.0.0      v stringr    1.5.0
v ggplot2    3.4.2      v tibble     3.2.1
v lubridate  1.9.2      v tidyr      1.3.0
v purrr      1.0.1
-- Conflicts ----- tidyverse_conflicts() --
x dplyr::filter() masks stats::filter()
x dplyr::lag()     masks stats::lag()
i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become
```

```
library(scales)
```

Attaching package: 'scales'

The following object is masked from 'package:purrr':

discard

The following object is masked from 'package:readr':

col_factor

```
library(knitr)

# For cleaning / filtering text
library(stringr)
library(wordcloud)
```

Loading required package: RColorBrewer

```
library(tm)
```

Loading required package: NLP

Attaching package: 'NLP'

The following object is masked from 'package:ggplot2':

```
annotate
```

```
library(janeaustenr)
library(textstem)
```

Loading required package: koRpus.lang.en

Loading required package: koRpus

Loading required package: syll

For information on available language packages for 'koRpus', run

```
available.koRpus.lang()
```

and see ?install.koRpus.lang()

Attaching package: 'koRpus'

The following object is masked from 'package:tm':

```
readTagged
```

The following object is masked from 'package:readr':

```
tokenize
```

```
library(syuzhet)
```

Attaching package: 'syuzhet'

The following object is masked from 'package:scales':

```
rescale
```

```
library(sentimentr)
```

Attaching package: 'sentimentr'

The following object is masked from 'package:syuzhet':

```
get_sentences
```

```
# For rendering  
library(rmarkdown)  
library(stringr)  
library(gridExtra)
```

Attaching package: 'gridExtra'

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

```
combine
```

```
library(grid)
```

```
data1 <- read_csv("data/data1.csv")
```

Rows: 2146 Columns: 169

-- Column specification -----

Delimiter: ","

chr (169): StartDate, EndDate, Status, IPAddress, Progress, Duration (in sec...

i Use ``spec()`` to retrieve the full column specification for this data.

i Specify the column types or set ``show_col_types = FALSE`` to quiet this message.

```
# The number of total responses
pre_length = nrow(data1)

# Filtering and cleaning responses
response <- data1 |>
  select(Q6, Q8) |>
  rename(
    reason = Q6, # text
    opinion = Q8 # number
  ) |>
  mutate(reason = gsub("(\\n|<br />)", " ", reason)) |>
  mutate(reason = gsub("'", "", reason)) |>
  mutate(reason = gsub('"', "", reason)) |>
  mutate(reason = gsub(".", "", reason, fixed = TRUE)) |> #prevent sentence splitting
  mutate(reason = gsub("?", "", reason, fixed = TRUE)) |> #prevent sentence splitting
  mutate(reason = gsub("!", "", reason, fixed = TRUE)) |> #prevent sentence splitting
  drop_na()

# Removing first 2 rows
response = response[-c(1, 2),]

# Reformatting opinion column
response$opinion = as.numeric(response$opinion)

# Lemmatizing words - reducing them to base form
lemmatize <- function(sentence) {
  return(paste(lemmatize_words(strsplit(sentence, " ")[[1]]),
    collapse=" "))
}
response[c("reason")] <- apply(response[c("reason")], 1, lemmatize)

# Adding sentence-level sentiments to each response
#response |>
# mutate(sentiment = sentiment(reason)$sentiment)
```

```

# Function to turn a column into a corpus
create_corpus <- function(column) {

  # Creating Corpus for ALL RAW REASONS
  corpus <- VCorpus(
    VectorSource(
      as.vector(column))
  )

  corpus <- corpus |>
    tm_map(removeNumbers) |>
    tm_map(removePunctuation) |>
    tm_map(stripWhitespace)

  corpus <- tm_map(corpus, content_transformer(tolower))
  corpus <- tm_map(corpus, removeWords, stopwords("english"))

  return (corpus)
}

# Corpus for all REASONS
q6_corpus = create_corpus(response$reason)

# Creating Corpus for OPINIONS & REASONS
reason_list <- split(response, response$opinion)
opinion_corpus_list <- list()

# Corporuses for the REASONS, split per OPINION (1-5)
opinion_1_corpus = create_corpus(reason_list[[1]]$reason)
opinion_2_corpus = create_corpus(reason_list[[2]]$reason)
opinion_3_corpus = create_corpus(reason_list[[3]]$reason)
opinion_4_corpus = create_corpus(reason_list[[4]]$reason)
opinion_5_corpus = create_corpus(reason_list[[5]]$reason)

# Corporuses for the REASONS, split by GENERAL OPINION
# where scores of 1 or 2 = oppose & 4 or 5 = support

# Creating corporuses for general support / opposition

```

```

opinion_support_corpus = create_corpus(
  rbind(reason_list[[1]], reason_list[[2]])$reason
)

opinion_oppose_corpus = create_corpus(
  rbind(reason_list[[4]], reason_list[[5]])$reason
)

# Calculating the number of real responses
post_length = nrow(response)
yield = round(((post_length / pre_length) * 100), 3)

#response

```

The data has 2146 responses. The percentage of non-blank responses is 93.476 %

```

# Returns a word-frequency matrix from a corpus
get_wfm <- function(corpus) {
  dtm <- TermDocumentMatrix(corpus)
  matrix <- as.matrix(dtm)
  words <- sort(rowSums(matrix),decreasing=TRUE)
  wfm <- data.frame(word = names(words),freq=words)

  return (wfm)
}

# Draws the word-frequency graph between 2 corpuses
draw_wfm_diff_graph <- function(corpus_1, corpus_2, n_width, p_width) {

  # Creating word-frequency matrix
  opinion_1_wfm = get_wfm(corpus_1)
  opinion_5_wfm = get_wfm(corpus_2)

  # Adding negative sign to opposing views
  opinion_1_wfm <- opinion_1_wfm |>
    mutate(freq = -freq)

  # Calculating the relative frequencies
  opinion_1_wfm <- opinion_1_wfm |>
    mutate(ratio = freq / (nrow(opinion_1_wfm)))
}

```

```

opinion_5_wfm <- opinion_5_wfm |>
  mutate(ratio = freq / (nrow(opinion_5_wfm)))

# Finding the difference in word frequencies
opinion_diff <- rbind(opinion_1_wfm, opinion_5_wfm)
opinion_diff <- opinion_diff |>
  group_by(word) |>
  summarize(diff_freq = sum(ratio)) |>
  arrange(desc(diff_freq))

# Joining the most significant words
largest_diff <- rbind(head(opinion_diff, p_width), tail(opinion_diff, n_width))

# Drawing the graph
largest_diff |>
  ggplot(
    aes(reorder(word, -diff_freq, sum),
        diff_freq, fill = diff_freq < 0)) +

  geom_bar(stat="identity") +

  coord_flip() +
  ylab("Difference in word frequency") +
  xlab("Word") +
  ggtitle("Word frequency of drone export supporters / opposers") +

  scale_fill_manual(
    values=c("#77dd76", "#f69185"),
    name="Drone export\nopinion",
    breaks=c("FALSE", "TRUE"),
    labels=c("Support", "Oppose")) +

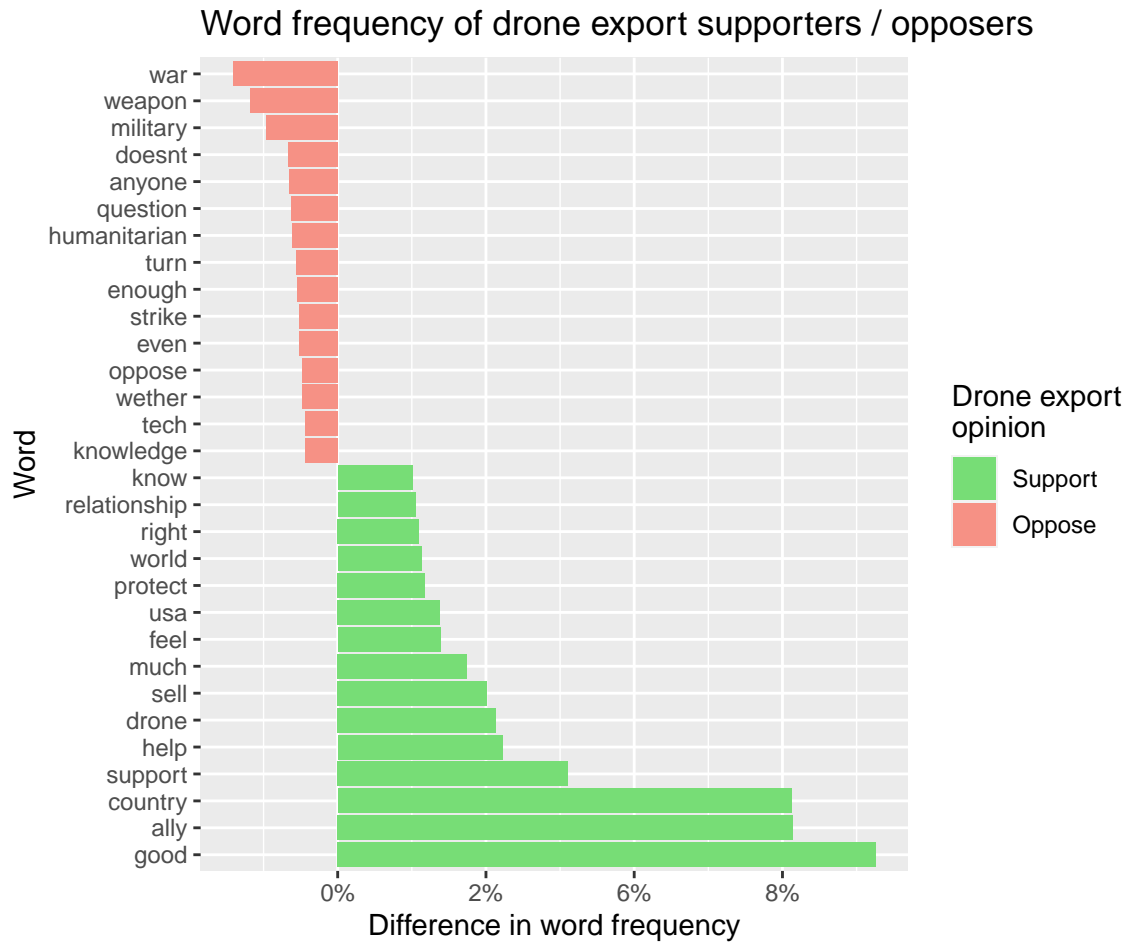
  ylim(-0.1,0.09) +
  scale_y_continuous(labels = scales::percent_format(accuracy = 2))
}

draw_wfm_diff_graph(opinion_support_corpus, opinion_oppose_corpus, 15, 15)

```

Scale for y is already present.

Adding another scale for y, which will replace the existing scale.



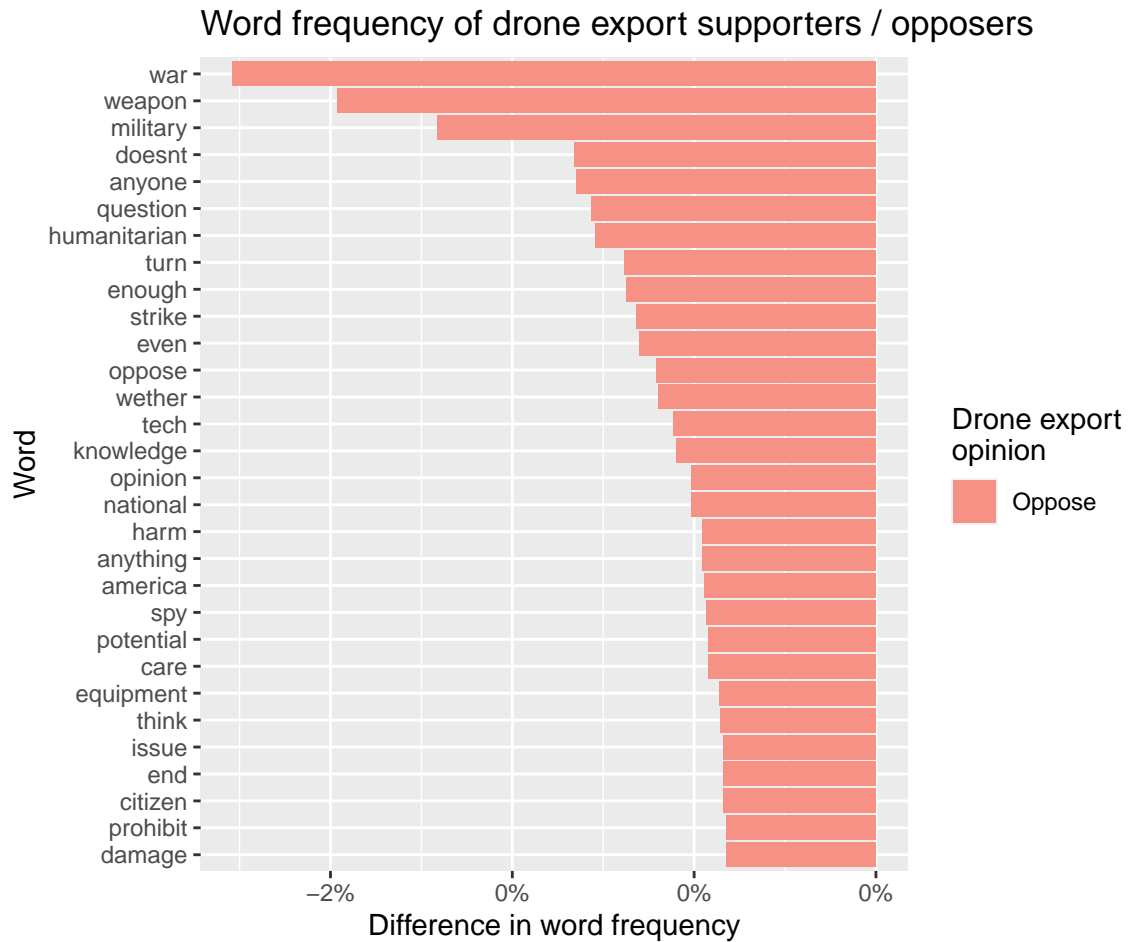
The difference in word frequency represents the percentage of the difference between the words used. For example, “good” is featured 8% more frequently in supportive votes than in opposing ones. On the other hand, “war” and “weapon” are featured more frequently in opposing votes.

The reason the word frequencies for supporters peak much more than for people opposing drone exports is because opposing viewpoints tended to use a greater variety of language, whereas drone export supporters mostly used the same words like “good”, “country” and “ally”.

```
draw_wfm_diff_graph(opinion_support_corpus, opinion_oppose_corpus, 30, 0)
```

Scale for y is already present.

Adding another scale for y, which will replace the existing scale.

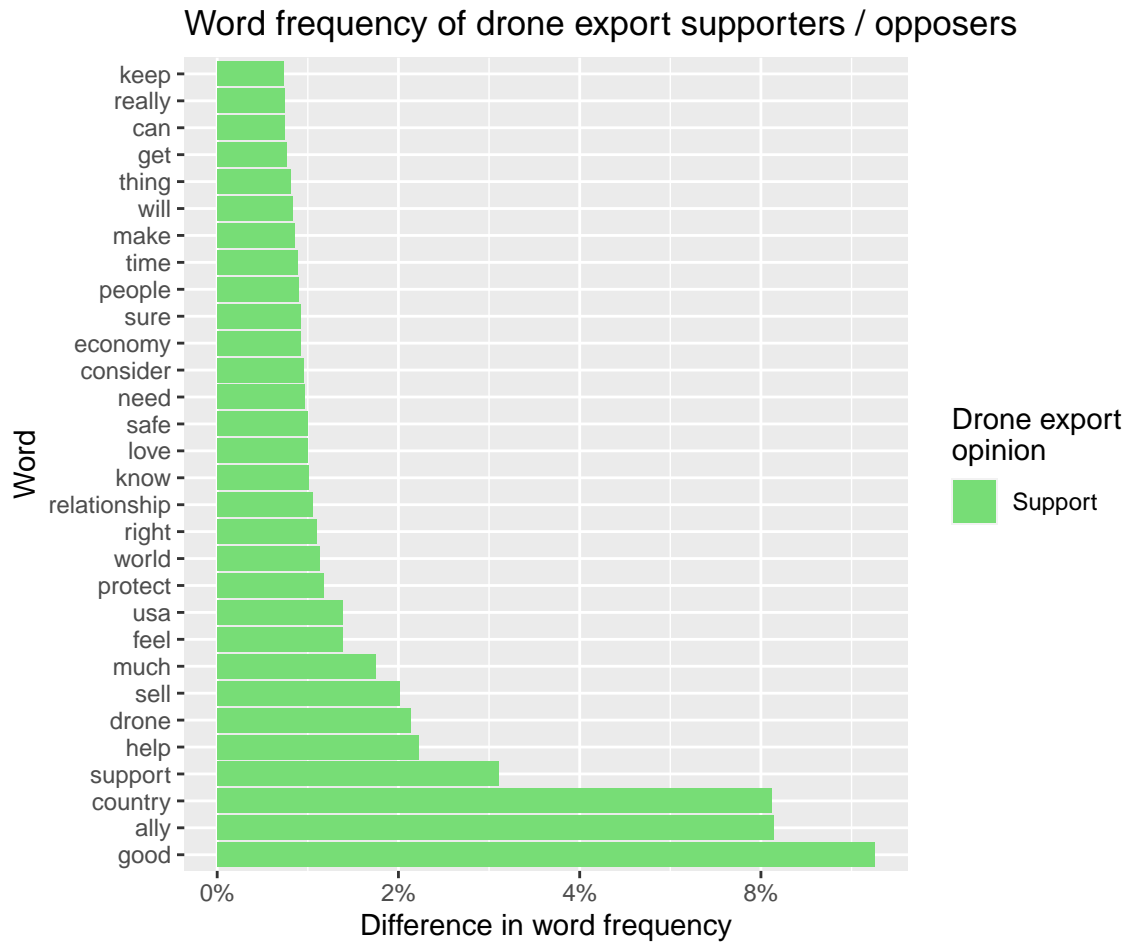


A closer analysis at the comments of the people opposing drone exports shows many of the factors people are concerned about.

```
draw_wfm_diff_graph(opinion_support_corpus, opinion_oppose_corpus, 0, 30)
```

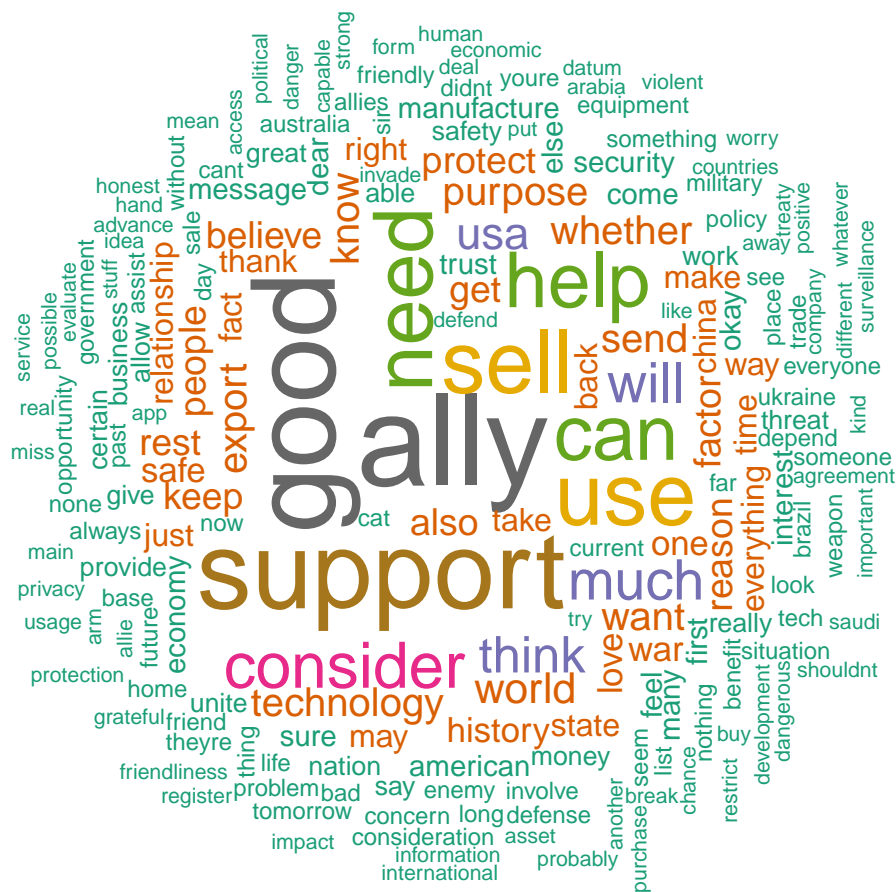
Scale for y is already present.

Adding another scale for y, which will replace the existing scale.



Similarly, looking at the comments by the people supporting drone exports reveals the reasoning behind their opinions.

```
# Draws a Word Cloud based from a corpus
generate_wordcloud <- function(corpus) {
  wfm <- get_wfm(corpus)
  wfm <- wfm[c(-1, -2),] # removing the words "drone" and "country"
  set.seed(1234)
  wordcloud(words = wfm$word,
            freq = wfm$freq,
            min.freq = 1,
            max.words=200,
            random.order=FALSE,
            rot.per=0.35,
```

A word cloud of words used by people who voted (5), “Strongly Supporting” drone exports.

```
get_sentiment <- function(x) {  
  return (sentiment(x)$sentiment)  
}  
  
get_sentiment("Economic benefit") #4
```

```
[1] 0.3535534
```

response

```
# A tibble: 2,006 x 2
```

	reason	opinion
	<chr>	<dbl>
1	Ifisbd kz e zkx dnx	3
2	Because its a choice I pick the answer	2
3	Im not sure	4
4	I consider what they do with the technology	4
5	Nothing	4
6	Jjhhu ask her not sure how I will not go	3
7	The economy, the global impact	5
8	Safety of other country	3
9	Cant let them have too much information	4
10	How do	1

i 1,996 more rows

```
statement <- as.vector(response$reason)

corpus <- tibble(document=1:nrow(response), text = statement)
corpus
```

```
# A tibble: 2,006 x 2
  document text
  <int> <chr>
1       1 1 Ifisbd kz e zkx dnx
2       2 2 Because its a choice I pick the answer
3       3 3 Im not sure
4       4 4 I consider what they do with the technology
5       5 5 Nothing
6       6 6 Jjhhu ask her not sure how I will not go
7       7 7 The economy, the global impact
8       8 8 Safety of other country
9       9 9 Cant let them have too much information
10      10 10 How do
# i 1,996 more rows
```

```
corpus <- corpus |>
  get_sentences() |>
  sentiment() |>
  head(nrow(response)) |>
  select(sentiment)
```

```
corpus
```

```
      sentiment
1:  0.00000000
2:  0.14142136
3:  0.00000000
4:  0.03535534
5:  0.00000000
---
2002:  0.00000000
2003: -0.07216878
2004:  0.00000000
2005:  0.28284271
2006: -0.24312820
```

```
df <- cbind(response, corpus)
```

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df
```

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1676 The policy of CAT, and the situation of the country negotiate with Australia be develop
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	opinion	sentiment
1	3	0.000000e+00
2	2	1.414214e-01
3	4	0.000000e+00
4	4	3.535534e-02
5	4	0.000000e+00
6	3	0.000000e+00
7	5	1.788854e-01
8	3	4.000000e-01
9	4	6.047432e-01
10	1	0.000000e+00
11	3	0.000000e+00
12	5	0.000000e+00
13	3	0.000000e+00
14	4	0.000000e+00
15	4	0.000000e+00
16	3	0.000000e+00
17	4	0.000000e+00
18	3	0.000000e+00
19	4	4.694855e-01
20	3	0.000000e+00
21	3	-2.834734e-01
22	3	0.000000e+00
23	5	1.889822e-01
24	3	0.000000e+00
25	3	-3.535534e-01
26	4	-3.750000e-01
27	1	-1.336306e-01
28	5	0.000000e+00
29	5	9.449112e-02
30	2	1.897367e-02
31	1	-2.496151e-01
32	4	5.303301e-01
33	1	0.000000e+00
34	3	1.336306e-01
35	4	0.000000e+00

36	3	0.000000e+00
37	2	0.000000e+00
38	4	0.000000e+00
39	3	3.535534e-01
40	3	0.000000e+00
41	3	0.000000e+00
42	2	-1.876388e-01
43	4	3.750000e-01
44	5	3.750000e-01
45	3	0.000000e+00
46	3	2.683282e-01
47	2	0.000000e+00
48	2	-7.216878e-02
49	3	1.664101e-01
50	2	2.651650e-01
51	4	0.000000e+00
52	3	0.000000e+00
53	4	-1.020621e-01
54	2	9.701425e-02
55	5	0.000000e+00
56	3	-2.132007e-02
57	3	0.000000e+00
58	2	-3.441236e-02
59	3	3.919647e-01
60	4	0.000000e+00
61	3	4.000000e-01
62	3	0.000000e+00
63	4	0.000000e+00
64	3	-7.216878e-01
65	3	0.000000e+00
66	4	7.387028e-01
67	3	0.000000e+00
68	3	4.472136e-01
69	1	2.672612e-02
70	4	3.319764e-01
71	3	7.500000e-01
72	2	0.000000e+00
73	4	0.000000e+00
74	2	-1.206045e-01
75	5	0.000000e+00
76	3	-3.535534e-01
77	3	0.000000e+00
78	4	-7.071068e-01

79	4	0.000000e+00
80	5	0.000000e+00
81	4	3.211820e-01
82	3	7.071068e-01
83	2	1.677051e-01
84	2	0.000000e+00
85	4	0.000000e+00
86	3	4.160251e-02
87	5	3.256323e-01
88	4	-2.165064e-01
89	2	0.000000e+00
90	3	4.647580e-01
91	5	6.063391e-02
92	5	0.000000e+00
93	4	3.023716e-01
94	4	0.000000e+00
95	1	3.535534e-02
96	4	0.000000e+00
97	3	1.386750e-01
98	4	0.000000e+00
99	2	2.514474e-01
100	4	0.000000e+00
101	3	1.000000e-04
102	2	4.522670e-01
103	5	3.636619e-01
104	4	0.000000e+00
105	4	1.386750e-01
106	3	3.061862e-01
107	4	-1.333333e-01
108	5	2.886751e-01
109	4	-5.126524e-01
110	1	0.000000e+00
111	4	6.008328e-01
112	3	-9.428090e-02
113	2	1.355344e-01
114	4	3.000000e-01
115	5	1.443376e-01
116	4	0.000000e+00
117	4	4.070403e-01
118	3	0.000000e+00
119	5	0.000000e+00
120	4	5.031153e-01
121	3	3.031089e-01

122	3	-1.032796e-01
123	3	-1.333333e-01
124	3	5.750000e-01
125	3	0.000000e+00
126	3	0.000000e+00
127	5	4.974937e-01
128	4	9.128709e-02
129	4	0.000000e+00
130	2	0.000000e+00
131	1	-2.500000e-02
132	4	1.666667e-01
133	5	0.000000e+00
134	2	-7.071068e-02
135	3	-3.577709e-01
136	2	-1.167434e-01
137	2	0.000000e+00
138	3	2.236068e-01
139	5	3.779645e-01
140	4	5.166667e-01
141	3	7.276069e-02
142	3	2.886751e-02
143	3	-4.227509e-01
144	2	-1.069045e-01
145	3	0.000000e+00
146	3	3.535534e-01
147	3	5.000000e-01
148	4	-9.176629e-02
149	2	0.000000e+00
150	3	-3.712311e-01
151	3	0.000000e+00
152	4	-1.118034e-01
153	3	0.000000e+00
154	1	4.082483e-01
155	3	0.000000e+00
156	5	1.764106e-01
157	1	-1.666667e-01
158	4	-6.842271e-01
159	4	3.880570e-01
160	3	5.303301e-01
161	5	9.176629e-02
162	3	0.000000e+00
163	3	0.000000e+00
164	3	-1.414214e-01

165	5	2.041241e-01
166	4	2.750000e-01
167	4	7.298004e-02
168	4	2.878278e-01
169	3	1.423025e-01
170	4	-2.500000e-01
171	4	8.000000e-01
172	3	0.000000e+00
173	5	2.041241e-01
174	4	-2.672612e-01
175	3	-1.044466e-01
176	3	-5.059644e-01
177	3	0.000000e+00
178	3	6.803361e-01
179	4	3.750000e-01
180	5	0.000000e+00
181	3	1.875000e-01
182	5	0.000000e+00
183	4	0.000000e+00
184	1	-9.701425e-02
185	3	2.834734e-01
186	4	-2.946278e-01
187	4	-1.511858e-01
188	3	-7.826637e-03
189	3	-1.507557e-01
190	3	0.000000e+00
191	5	0.000000e+00
192	3	0.000000e+00
193	3	-2.496151e-01
194	4	0.000000e+00
195	5	7.298004e-02
196	3	0.000000e+00
197	3	2.634826e-01
198	5	-7.427814e-02
199	3	3.162278e-02
200	4	3.750000e-01
201	5	0.000000e+00
202	4	0.000000e+00
203	5	-1.587713e-01
204	3	1.563858e-01
205	2	0.000000e+00
206	4	0.000000e+00
207	5	-7.537784e-02

208	4	4.000000e-01
209	4	8.703883e-03
210	3	0.000000e+00
211	4	3.333333e-02
212	4	2.236068e-01
213	5	0.000000e+00
214	3	2.182821e-01
215	5	2.886751e-01
216	2	0.000000e+00
217	5	-1.889822e-01
218	3	3.750000e-01
219	3	2.380593e-02
220	4	3.162278e-01
221	3	2.218801e-01
222	2	7.500000e-02
223	3	0.000000e+00
224	3	-2.191347e-01
225	4	-1.206045e-01
226	4	3.785360e-01
227	5	9.449112e-02
228	4	-2.834734e-01
229	3	-2.041241e-01
230	4	0.000000e+00
231	1	-2.425356e-01
232	3	4.743416e-02
233	3	0.000000e+00
234	5	7.794229e-01
235	3	3.636619e-01
236	3	0.000000e+00
237	5	-8.017837e-02
238	3	5.773503e-02
239	4	2.267787e-01
240	4	1.000000e+00
241	5	4.618802e-01
242	3	2.425356e-01
243	3	2.581989e-01
244	1	-1.632993e-01
245	1	-6.868028e-02
246	2	-3.944467e-01
247	3	2.834734e-01
248	1	1.767767e-04
249	2	-1.720618e-01
250	5	0.000000e+00

251	4	0.000000e+00
252	4	0.000000e+00
253	3	0.000000e+00
254	3	0.000000e+00
255	4	2.834734e-01
256	4	4.024922e-01
257	4	-1.819222e-01
258	4	2.875000e-01
259	5	3.023716e-01
260	3	2.025407e-01
261	3	0.000000e+00
262	3	0.000000e+00
263	2	4.160251e-01
264	3	1.936492e-01
265	3	2.828427e-01
266	3	0.000000e+00
267	3	4.824182e-01
268	5	1.154701e-01
269	4	2.886751e-01
270	2	0.000000e+00
271	3	0.000000e+00
272	3	1.936492e-01
273	4	8.000000e-01
274	1	1.507557e-02
275	4	2.065591e-01
276	4	8.049845e-02
277	3	-2.245366e-01
278	3	5.656854e-01
279	2	3.333333e-02
280	4	-1.507557e-01
281	5	0.000000e+00
282	5	2.886751e-01
283	4	-2.474874e-01
284	3	0.000000e+00
285	2	8.000000e-01
286	3	8.000000e-01
287	5	4.000000e-01
288	4	0.000000e+00
289	2	1.500000e-01
290	5	0.000000e+00
291	2	0.000000e+00
292	2	-1.290994e-01
293	3	3.000000e-01

294	5	0.000000e+00
295	4	0.000000e+00
296	3	3.535534e-01
297	3	-5.773503e-01
298	3	-2.357023e-02
299	1	3.600000e-01
300	3	1.069045e-01
301	3	0.000000e+00
302	3	0.000000e+00
303	3	-2.121320e-01
304	3	0.000000e+00
305	1	8.164966e-02
306	5	0.000000e+00
307	3	-3.712311e-01
308	3	1.237437e-01
309	2	-6.123724e-01
310	3	8.984727e-01
311	4	3.752500e-01
312	5	-3.682427e-01
313	3	1.666667e-01
314	4	-1.460593e-01
315	2	-1.788854e-01
316	4	-3.211820e-01
317	3	0.000000e+00
318	3	4.110961e-01
319	5	-3.333333e-01
320	4	0.000000e+00
321	3	3.333333e-01
322	4	1.876630e-01
323	3	1.206045e-01
324	3	0.000000e+00
325	1	-1.905256e-01
326	3	1.091089e-01
327	3	0.000000e+00
328	4	5.000000e-02
329	1	-1.344387e-01
330	3	9.036961e-02
331	4	1.492635e+00
332	4	5.917840e-01
333	3	0.000000e+00
334	5	0.000000e+00
335	4	2.529822e-01
336	4	-3.104241e-01

337	5	0.000000e+00
338	2	-1.109400e-01
339	3	0.000000e+00
340	5	1.443376e-01
341	3	-3.500000e-01
342	5	0.000000e+00
343	4	3.354102e-01
344	3	-1.154701e-01
345	4	3.638034e-02
346	5	3.752777e-01
347	4	0.000000e+00
348	1	-5.875000e-01
349	3	3.535534e-01
350	3	0.000000e+00
351	4	2.886751e-01
352	2	0.000000e+00
353	3	3.768892e-01
354	2	0.000000e+00
355	4	0.000000e+00
356	2	0.000000e+00
357	4	0.000000e+00
358	4	0.000000e+00
359	5	2.309401e-01
360	4	2.236068e-02
361	4	2.125000e-01
362	3	-9.701425e-02
363	4	-6.396021e-02
364	3	7.071068e-01
365	2	-1.333333e-01
366	3	0.000000e+00
367	4	8.000000e-02
368	3	2.995381e-01
369	3	2.806243e-01
370	2	0.000000e+00
371	3	0.000000e+00
372	5	2.651650e-01
373	4	0.000000e+00
374	5	0.000000e+00
375	4	5.656854e-01
376	4	7.216878e-02
377	2	-2.958040e-01
378	3	0.000000e+00
379	4	0.000000e+00

380	2	1.732051e-01
381	4	-3.411211e-02
382	2	0.000000e+00
383	3	-3.535534e-01
384	1	-5.500000e-01
385	2	-1.535045e-01
386	4	-2.000000e-01
387	4	1.511858e-01
388	3	2.250000e-01
389	4	6.864065e-02
390	4	0.000000e+00
391	4	3.750000e-01
392	3	0.000000e+00
393	2	6.971370e-01
394	3	1.428869e-01
395	4	2.449490e-01
396	4	0.000000e+00
397	4	6.750000e-01
398	5	3.750000e-01
399	5	2.651650e-01
400	4	3.474396e-01
401	2	-4.008919e-02
402	4	5.427204e-01
403	3	0.000000e+00
404	3	-1.333946e-01
405	3	-2.405626e-01
406	3	0.000000e+00
407	5	2.218801e-01
408	3	0.000000e+00
409	3	0.000000e+00
410	4	-3.061862e-01
411	3	1.386750e-01
412	5	-2.535463e-02
413	3	3.608439e-01
414	4	5.000000e-01
415	4	-4.146140e-01
416	3	0.000000e+00
417	3	1.549516e-01
418	4	2.474874e-01
419	3	6.933752e-02
420	4	-1.002043e-01
421	2	8.574929e-03
422	2	2.121320e-01

423	3	1.423025e-01
424	5	-8.574929e-02
425	4	0.000000e+00
426	4	-1.767767e-01
427	3	0.000000e+00
428	3	0.000000e+00
429	3	-3.073504e-01
430	3	3.882901e-01
431	4	4.875000e-01
432	5	0.000000e+00
433	5	0.000000e+00
434	5	4.419417e-01
435	3	-9.449112e-02
436	4	-2.500000e-01
437	2	-1.837117e-01
438	1	-4.082483e-01
439	3	1.974901e-01
440	2	0.000000e+00
441	5	3.952847e-01
442	4	0.000000e+00
443	2	-1.333333e-01
444	4	0.000000e+00
445	4	3.061862e-01
446	4	1.875000e-01
447	1	1.178511e-02
448	5	5.103104e-01
449	3	0.000000e+00
450	5	3.897114e-01
451	3	3.375000e-01
452	5	0.000000e+00
453	4	2.080126e-01
454	4	-2.738613e-02
455	2	-7.756718e-01
456	5	4.647580e-01
457	3	0.000000e+00
458	3	0.000000e+00
459	4	0.000000e+00
460	3	-1.666667e-01
461	3	0.000000e+00
462	5	1.020504e+00
463	2	8.000000e-02
464	4	0.000000e+00
465	3	2.773501e-01

466	3	3.015113e-01
467	4	-1.333333e-01
468	3	-6.250000e-02
469	4	-6.454972e-02
470	3	3.005204e-01
471	2	1.347151e-01
472	4	-5.000000e-01
473	4	0.000000e+00
474	4	1.666667e-01
475	3	3.466876e-01
476	3	-3.516767e-01
477	4	5.333333e-01
478	4	1.650000e+00
479	5	1.055290e-01
480	5	2.236068e-01
481	2	-8.660679e-01
482	4	3.993841e-01
483	4	-4.791864e-01
484	2	-1.428869e-01
485	3	3.464102e-01
486	2	0.000000e+00
487	1	-2.166160e-01
488	3	3.961774e-01
489	3	1.581139e-01
490	5	4.300000e-01
491	4	0.000000e+00
492	5	2.345080e-01
493	4	0.000000e+00
494	4	4.800000e-01
495	4	2.404163e-01
496	5	-3.216667e-01
497	4	-1.788854e-01
498	1	2.651650e-01
499	3	0.000000e+00
500	2	1.200000e-01
501	2	4.714045e-02
502	3	2.840188e-01
503	3	-3.354102e-02
504	5	0.000000e+00
505	1	1.285714e-01
506	4	5.303301e-01
507	5	-2.255336e-01
508	5	9.449112e-02

509	3	-2.323790e-01
510	5	6.333333e-01
511	5	2.500000e-01
512	4	1.628573e+00
513	2	-1.290994e-02
514	3	-3.354102e-01
515	4	-6.454972e-02
516	3	-1.511858e-01
517	5	0.000000e+00
518	4	0.000000e+00
519	5	1.336306e-01
520	5	0.000000e+00
521	5	3.265986e-01
522	2	6.859943e-02
523	5	4.000000e-01
524	3	0.000000e+00
525	2	-1.616448e-01
526	4	0.000000e+00
527	2	7.236272e-01
528	4	1.250000e-01
529	3	3.530090e-01
530	2	7.071068e-01
531	4	-3.031089e-01
532	5	-1.664101e-01
533	4	-2.182821e-01
534	5	3.265986e-01
535	2	2.425356e-02
536	1	-1.386750e-01
537	4	0.000000e+00
538	4	-3.198011e-02
539	3	-3.242299e-01
540	3	4.772971e-01
541	1	-1.720618e-01
542	4	1.336306e-02
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545	4	3.611964e-01
546	3	4.140000e-01
547	5	5.059644e-01
548	3	6.092718e-02
549	4	0.000000e+00
550	3	2.538982e-01
551	2	2.261335e-01

552	2	4.000000e-01
553	5	2.000000e-01
554	4	0.000000e+00
555	4	3.061862e-01
556	3	-1.309307e-01
557	5	-5.455447e-02
558	5	2.651650e-01
559	2	2.773501e-01
560	4	2.785430e-01
561	3	0.000000e+00
562	5	-4.724556e-01
563	3	1.147351e-01
564	4	0.000000e+00
565	4	1.581139e-01
566	5	1.114172e-01
567	5	6.414270e-01
568	3	8.340577e-02
569	2	-1.900000e-01
570	4	3.492513e-01
571	5	5.303301e-01
572	3	0.000000e+00
573	4	0.000000e+00
574	5	0.000000e+00
575	2	4.796917e-01
576	3	-1.154701e-01
577	5	4.330127e-01
578	3	0.000000e+00
579	3	1.936492e-01
580	3	4.714045e-02
581	4	1.809068e-01
582	4	-1.511858e-01
583	1	-3.086975e-01
584	4	3.061862e-01
585	1	1.581139e-01
586	1	-2.733041e-01
587	4	1.286239e-01
588	2	0.000000e+00
589	4	4.677072e-01
590	4	-3.227486e-01
591	5	-1.264911e-01
592	2	-1.916667e-01
593	5	3.535534e-02
594	5	3.265986e-01

595	1	-2.958040e-01
596	5	-2.711088e-01
597	4	1.443376e-01
598	4	-2.878278e-01
599	4	0.000000e+00
600	3	1.819017e-01
601	2	2.236068e-01
602	5	-3.750000e-01
603	5	-1.530931e-01
604	3	0.000000e+00
605	4	3.000000e-01
606	4	-1.511858e-01
607	2	-3.278719e-01
608	5	3.577709e-01
609	5	2.294157e-02
610	3	-6.882472e-02
611	4	-3.779645e-01
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613	2	1.042572e-01
614	3	1.500000e-01
615	3	3.000000e-01
616	4	-1.091410e-01
617	5	0.000000e+00
618	4	4.330127e-01
619	4	-2.309401e-01
620	4	-3.779645e-01
621	3	-6.005679e-01
622	4	-1.206045e-01
623	4	4.618802e-01
624	4	2.886751e-01
625	4	-2.941742e-02
626	3	3.674235e-01
627	3	0.000000e+00
628	4	2.941742e-02
629	4	0.000000e+00
630	5	7.905694e-02
631	3	1.940285e-01
632	4	-2.425356e-01
633	2	1.046727e+00
634	4	1.386750e-01
635	4	0.000000e+00
636	4	2.523573e-01
637	3	2.581989e-02

638	3	2.828427e-01
639	4	1.212678e-01
640	5	4.522670e-01
641	5	0.000000e+00
642	5	-6.037384e-01
643	4	-8.660254e-01
644	3	-3.464102e-01
645	2	1.622214e-02
646	1	1.636504e-01
647	4	1.581139e-01
648	5	3.250000e-01
649	3	3.061862e-01
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651	4	2.500000e-01
652	2	4.083333e-01
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654	3	-8.549091e-02
655	4	3.889087e-01
656	4	1.507557e-01
657	4	-1.060660e-01
658	2	0.000000e+00
659	5	4.500000e-01
660	2	1.296362e-01
661	3	0.000000e+00
662	4	3.500000e-01
663	1	1.386750e-01
664	3	0.000000e+00
665	4	6.123724e-02
666	4	-2.666667e-01
667	3	2.886751e-01
668	4	0.000000e+00
669	2	1.666667e-01
670	4	-1.658312e-01
671	2	1.767767e-01
672	3	0.000000e+00
673	4	-2.500000e-01
674	3	0.000000e+00
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676	2	-3.023716e-01
677	4	5.926975e-02
678	3	2.651650e-01
679	2	2.523573e-01
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681	3	0.000000e+00
682	3	0.000000e+00
683	1	3.788686e-01
684	2	1.530931e-01
685	4	-1.780000e-01
686	3	0.000000e+00
687	4	-6.708204e-01
688	5	2.371708e-01
689	3	0.000000e+00
690	2	0.000000e+00
691	4	-2.173296e-01
692	3	-8.333333e-02
693	3	6.046918e-01
694	4	-4.330127e-01
695	4	0.000000e+00
696	5	-3.018692e-01
697	4	0.000000e+00
698	2	0.000000e+00
699	4	1.767767e-01
700	4	-1.069045e-01
701	4	-1.333333e-01
702	3	6.499987e-01
703	4	-2.025407e-01
704	4	6.250000e-01
705	2	7.745967e-02
706	3	-3.211820e-01
707	2	0.000000e+00
708	3	-3.535534e-01
709	2	-1.069045e-01
710	2	-3.500000e-01
711	2	-7.715167e-03
712	3	0.000000e+00
713	4	2.666667e-01
714	2	-3.465132e-01
715	3	5.000000e-02
716	4	0.000000e+00
717	3	1.125000e-01
718	2	-2.425356e-02
719	3	0.000000e+00
720	5	-3.401680e-01
721	2	0.000000e+00
722	3	0.000000e+00
723	5	8.421428e-01

724	2	-1.371989e-01
725	4	2.834734e-01
726	3	-6.047432e-02
727	3	0.000000e+00
728	4	0.000000e+00
729	3	0.000000e+00
730	1	-4.535574e-01
731	4	3.741657e-01
732	4	0.000000e+00
733	4	-1.055290e-01
734	4	0.000000e+00
735	2	1.279204e-01
736	4	1.581139e-01
737	4	2.556039e-01
738	1	0.000000e+00
739	3	0.000000e+00
740	3	0.000000e+00
741	4	8.838835e-02
742	3	-2.653614e-01
743	2	2.004459e-01
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745	5	-1.697056e-01
746	3	-5.477226e-02
747	3	-1.206045e-01
748	3	0.000000e+00
749	5	1.643990e-02
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751	3	3.437500e-01
752	2	4.992302e-01
753	4	0.000000e+00
754	5	6.500000e-01
755	4	8.728716e-02
756	5	5.478855e-01
757	3	-2.371708e-01
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759	4	2.596793e-01
760	4	-1.000000e+00
761	5	1.936492e-01
762	3	0.000000e+00
763	4	-6.681531e-02
764	3	8.822755e-01
765	5	0.000000e+00
766	4	1.221316e-01

767	4	9.707253e-02
768	4	4.000000e-01
769	3	6.047432e-01
770	2	-2.500000e-01
771	5	2.834734e-01
772	2	-1.601282e-02
773	3	3.553895e-01
774	4	0.000000e+00
775	3	4.266423e-01
776	4	3.577709e-01
777	2	9.500661e-01
778	4	-1.539601e-01
779	4	0.000000e+00
780	4	5.983333e-01
781	4	1.341641e-01
782	3	5.656854e-01
783	3	-1.373606e-02
784	4	0.000000e+00
785	3	5.000000e-01
786	3	-7.500000e-02
787	4	8.000000e-01
788	4	2.293659e-01
789	3	6.250000e-02
790	3	4.743416e-02
791	3	-3.608439e-01
792	4	1.745743e-01
793	5	1.237437e-01
794	3	0.000000e+00
795	3	-2.500000e-01
796	3	3.464102e-01
797	4	7.462025e-02
798	2	-3.549702e-01
799	4	0.000000e+00
800	3	0.000000e+00
801	4	5.250000e-01
802	4	0.000000e+00
803	5	0.000000e+00
804	3	0.000000e+00
805	3	0.000000e+00
806	3	7.348469e-01
807	4	4.543441e-01
808	3	2.165064e-01
809	3	0.000000e+00

810	3	0.000000e+00
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812	3	0.000000e+00
813	4	3.752777e-01
814	5	3.744226e-01
815	1	0.000000e+00
816	3	-1.511858e-01
817	4	0.000000e+00
818	3	8.660254e-02
819	5	0.000000e+00
820	3	0.000000e+00
821	4	6.931811e-01
822	3	-2.912176e-01
823	2	-3.897114e-01
824	4	3.023716e-01
825	3	0.000000e+00
826	4	1.936492e-01
827	3	2.651650e-01
828	3	-5.051237e-01
829	4	0.000000e+00
830	3	3.061862e-01
831	3	0.000000e+00
832	4	0.000000e+00
833	3	0.000000e+00
834	4	3.474396e-01
835	1	3.674235e-01
836	5	4.330127e-01
837	3	0.000000e+00
838	4	1.109400e-01
839	3	2.258500e-01
840	2	-1.772373e-01
841	5	-4.486909e-01
842	3	0.000000e+00
843	4	0.000000e+00
844	4	0.000000e+00
845	4	0.000000e+00
846	4	-1.414214e-01
847	2	0.000000e+00
848	2	0.000000e+00
849	2	5.000000e-02
850	3	7.071068e-01
851	2	8.320503e-02
852	3	0.000000e+00

853	5	6.940221e-02
854	3	2.294157e-02
855	5	5.656854e-01
856	4	3.535534e-01
857	4	-1.264911e-01
858	4	2.000000e-01
859	2	-4.850713e-01
860	2	-5.131117e-02
861	1	2.712583e-01
862	4	-3.712311e-01
863	4	-5.773503e-01
864	1	-1.666667e-01
865	3	5.773503e-01
866	3	-9.176629e-02
867	2	0.000000e+00
868	1	0.000000e+00
869	3	2.834734e-01
870	2	0.000000e+00
871	3	5.656854e-01
872	4	0.000000e+00
873	2	-5.031153e-01
874	2	-3.666667e-02
875	4	-4.242641e-02
876	2	0.000000e+00
877	4	-1.746257e-01
878	4	-2.500000e-01
879	4	0.000000e+00
880	2	1.299038e-01
881	1	-4.157609e-01
882	2	-2.672612e-02
883	4	2.828427e-01
884	4	0.000000e+00
885	4	4.041452e-01
886	4	6.090529e-01
887	2	2.834734e-01
888	1	1.666667e-02
889	4	-2.828427e-01
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891	5	6.025000e-01
892	3	-2.041241e-01
893	3	8.131728e-02
894	5	5.669467e-01
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896	5	2.236068e-01
897	4	1.889822e-02
898	3	-3.872983e-02
899	4	-3.000000e-02
900	3	4.082483e-01
901	4	0.000000e+00
902	4	4.242641e-01
903	4	-7.844645e-02
904	2	1.118034e-01
905	2	8.485281e-02
906	4	2.080126e-01
907	4	5.590170e-02
908	3	-3.299832e-01
909	5	2.323790e-01
910	4	0.000000e+00
911	3	6.166441e-01
912	4	2.916815e-01
913	4	7.071068e-01
914	3	0.000000e+00
915	4	-1.732051e-01
916	2	4.269075e-01
917	4	5.773503e-02
918	4	-5.051815e-01
919	4	-4.472136e-01
920	4	4.472136e-02
921	1	-6.454972e-01
922	1	-2.700000e-01
923	3	-9.036961e-02
924	3	0.000000e+00
925	2	0.000000e+00
926	5	2.085144e-02
927	3	0.000000e+00
928	3	-1.819017e-01
929	3	3.750000e-01
930	1	1.500000e-01
931	4	-2.663955e-01
932	1	-6.949732e-01
933	3	8.846517e-02
934	5	5.034878e-01
935	4	-2.500000e-01
936	4	1.695289e-01
937	5	-1.874085e-02
938	5	1.940285e-01

939	4	3.000000e-01
940	2	5.034878e-01
941	4	-2.041241e-01
942	5	0.000000e+00
943	4	0.000000e+00
944	4	2.730160e-01
945	4	-1.069045e-01
946	4	-3.849002e-02
947	3	-3.750000e-01
948	4	-1.219989e-01
949	2	-3.198011e-02
950	3	-2.267787e-01
951	4	8.033264e-02
952	3	0.000000e+00
953	3	0.000000e+00
954	4	2.500000e-01
955	1	-3.231973e-01
956	2	3.018692e-01
957	3	0.000000e+00
958	3	1.246667e+00
959	4	1.154701e-01
960	4	2.529822e-01
961	2	-2.165064e-01
962	5	2.886751e-01
963	3	-3.265986e-01
964	3	2.294157e-02
965	4	0.000000e+00
966	3	0.000000e+00
967	3	-2.408865e-01
968	2	0.000000e+00
969	4	2.886751e-01
970	4	2.666667e-01
971	3	3.535534e-02
972	4	5.303301e-02
973	3	-5.000000e-01
974	3	-6.681531e-02
975	4	4.583939e-01
976	4	1.000000e+00
977	4	2.834734e-01
978	2	-1.206045e-01
979	3	-1.020621e-01
980	4	-3.000000e-01
981	5	-1.443376e-01

982	4	2.562846e-01
983	2	2.886751e-01
984	5	0.000000e+00
985	2	-1.732051e-01
986	3	1.874085e-01
987	5	2.711088e-01
988	2	0.000000e+00
989	3	-4.364358e-02
990	4	3.608439e-01
991	1	0.000000e+00
992	3	2.502173e-02
993	4	3.726780e-02
994	4	3.354102e-01
995	3	3.872983e-02
996	3	-5.480485e-01
997	2	-2.375000e-01
998	4	4.472136e-02
999	4	0.000000e+00
1000	3	3.577709e-01
1001	1	-4.000504e-01
1002	3	1.897367e-01
1003	3	0.000000e+00
1004	4	3.354102e-01
1005	2	3.265986e-01
1006	4	-1.333333e-01
1007	5	0.000000e+00
1008	5	4.409082e-01
1009	3	0.000000e+00
1010	5	-2.500000e-01
1011	3	0.000000e+00
1012	5	1.581139e-02
1013	4	0.000000e+00
1014	1	-1.889822e-01
1015	4	-2.236068e-01
1016	4	4.330127e-01
1017	4	1.147659e-01
1018	3	2.581989e-02
1019	3	5.000000e-01
1020	4	3.000000e-01
1021	2	-6.175000e-01
1022	3	-3.125000e-01
1023	4	4.330127e-01
1024	4	-4.330127e-01

1025	5	0.000000e+00
1026	4	6.517727e-01
1027	3	0.000000e+00
1028	4	6.681531e-02
1029	3	1.732051e-01
1030	4	2.828427e-01
1031	4	4.014775e-01
1032	3	-2.500000e-01
1033	4	7.954951e-01
1034	4	0.000000e+00
1035	2	7.500000e-01
1036	4	0.000000e+00
1037	4	0.000000e+00
1038	4	-3.752777e-01
1039	3	2.000000e-01
1040	5	3.401680e-01
1041	5	2.886751e-01
1042	5	2.886751e-01
1043	5	5.813777e-01
1044	4	0.000000e+00
1045	3	-3.015113e-02
1046	5	1.066752e+00
1047	4	0.000000e+00
1048	3	3.389891e-01
1049	4	-4.694855e-01
1050	3	8.944272e-01
1051	2	0.000000e+00
1052	2	0.000000e+00
1053	3	6.666667e-02
1054	4	-2.886751e-02
1055	2	0.000000e+00
1056	3	0.000000e+00
1057	3	0.000000e+00
1058	4	1.767767e-01
1059	3	-1.224745e-01
1060	1	0.000000e+00
1061	5	0.000000e+00
1062	2	-2.250000e-01
1063	4	6.000000e-01
1064	3	2.886751e-02
1065	3	0.000000e+00
1066	4	1.889822e-01
1067	5	5.303301e-01

1068	4	0.000000e+00
1069	5	1.767767e-01
1070	3	0.000000e+00
1071	4	0.000000e+00
1072	3	3.265986e-01
1073	3	-3.162278e-02
1074	3	-3.535534e-01
1075	3	1.936492e-01
1076	3	0.000000e+00
1077	4	0.000000e+00
1078	4	4.618802e-01
1079	4	2.886751e-01
1080	4	5.303301e-01
1081	1	0.000000e+00
1082	3	-5.000000e-01
1083	3	-2.886751e-01
1084	3	3.750000e-01
1085	2	1.118034e-01
1086	4	5.103104e-01
1087	4	4.419417e-01
1088	4	0.000000e+00
1089	3	-6.000000e-02
1090	4	3.535534e-01
1091	2	2.886751e-01
1092	5	7.216878e-02
1093	3	-2.449490e-01
1094	5	0.000000e+00
1095	2	-2.041241e-01
1096	2	0.000000e+00
1097	3	-8.660254e-05
1098	3	0.000000e+00
1099	4	3.023716e-01
1100	3	7.954951e-01
1101	4	2.581989e-01
1102	4	4.346591e-01
1103	4	0.000000e+00
1104	5	0.000000e+00
1105	5	0.000000e+00
1106	4	-2.182821e-01
1107	3	0.000000e+00
1108	3	3.577709e-01
1109	4	-1.264911e-01
1110	3	-3.535534e-02

1111	3	9.036961e-02
1112	4	0.000000e+00
1113	4	0.000000e+00
1114	3	0.000000e+00
1115	2	-8.600000e-02
1116	4	0.000000e+00
1117	3	4.024922e-01
1118	4	2.065591e-01
1119	4	0.000000e+00
1120	5	3.750000e-01
1121	3	2.500000e-02
1122	4	0.000000e+00
1123	3	4.000000e-02
1124	3	4.330127e-01
1125	2	-2.606430e-01
1126	5	6.000000e-01
1127	4	-7.559289e-02
1128	4	2.236068e-01
1129	2	4.913538e-01
1130	5	-1.632993e-01
1131	4	-2.886751e-01
1132	3	-1.632993e-01
1133	5	7.500000e-01
1134	4	4.618802e-01
1135	3	-1.936492e-01
1136	3	0.000000e+00
1137	4	3.300000e-01
1138	5	4.000000e-01
1139	5	1.467247e+00
1140	4	7.500000e-01
1141	2	0.000000e+00
1142	4	-1.010363e-01
1143	3	-3.287020e-01
1144	3	0.000000e+00
1145	4	5.375872e-01
1146	3	7.675226e-02
1147	4	0.000000e+00
1148	5	0.000000e+00
1149	3	0.000000e+00
1150	3	2.261335e-01
1151	3	0.000000e+00
1152	3	-7.500000e-01
1153	4	1.207477e+00

1154	5	4.811252e-02
1155	3	0.000000e+00
1156	3	0.000000e+00
1157	2	0.000000e+00
1158	1	0.000000e+00
1159	4	9.701583e-01
1160	3	4.024922e-01
1161	5	1.565248e-01
1162	4	-4.695743e-01
1163	3	0.000000e+00
1164	5	4.500000e-01
1165	4	0.000000e+00
1166	4	-2.408865e-01
1167	5	-8.340577e-02
1168	4	0.000000e+00
1169	1	1.796053e-01
1170	3	0.000000e+00
1171	4	0.000000e+00
1172	2	0.000000e+00
1173	3	0.000000e+00
1174	4	-3.750000e-01
1175	3	0.000000e+00
1176	2	1.032796e-01
1177	4	3.833333e-01
1178	4	0.000000e+00
1179	5	0.000000e+00
1180	4	0.000000e+00
1181	4	-2.236068e-01
1182	4	0.000000e+00
1183	3	3.354102e-01
1184	4	0.000000e+00
1185	3	4.000000e-01
1186	3	-1.375000e-01
1187	3	4.000000e-01
1188	2	-2.165064e-01
1189	3	3.535534e-01
1190	2	1.889822e-01
1191	4	3.354102e-01
1192	4	-2.309401e-01
1193	3	0.000000e+00
1194	4	0.000000e+00
1195	5	0.000000e+00
1196	5	3.265986e-01

1197	4	4.618802e-01
1198	3	0.000000e+00
1199	3	0.000000e+00
1200	3	0.000000e+00
1201	2	1.875000e-01
1202	3	4.472136e-02
1203	4	-3.320392e-01
1204	4	1.511858e-01
1205	5	1.767767e-01
1206	3	4.131182e-01
1207	3	0.000000e+00
1208	4	1.443376e-01
1209	3	0.000000e+00
1210	4	-2.309401e-01
1211	3	3.464102e-01
1212	4	-4.596194e-01
1213	4	6.639528e-01
1214	2	4.082483e-01
1215	3	-1.206045e-01
1216	5	-1.378215e-01
1217	4	5.202097e-01
1218	3	0.000000e+00
1219	3	0.000000e+00
1220	3	3.333333e-02
1221	3	4.330127e-01
1222	4	0.000000e+00
1223	2	0.000000e+00
1224	4	5.000000e-01
1225	3	0.000000e+00
1226	2	2.236068e-02
1227	4	4.632430e-01
1228	3	4.269075e-01
1229	4	-2.828427e-01
1230	2	0.000000e+00
1231	5	0.000000e+00
1232	4	2.840188e-01
1233	1	-2.085144e-01
1234	3	0.000000e+00
1235	3	3.750000e-01
1236	5	0.000000e+00
1237	3	-2.651650e-01
1238	2	5.163978e-02
1239	3	-1.333333e-01

1240	3	-1.581139e-01
1241	3	-2.236068e-01
1242	3	2.041241e-02
1243	5	1.491202e-01
1244	4	-1.666667e-01
1245	1	-1.767767e-01
1246	2	2.309401e-01
1247	5	0.000000e+00
1248	3	0.000000e+00
1249	4	-2.773501e-02
1250	3	3.061862e-01
1251	4	0.000000e+00
1252	3	1.118034e-01
1253	2	0.000000e+00
1254	2	-3.875288e-01
1255	5	4.330127e-01
1256	3	-1.250000e-01
1257	4	-3.516767e-01
1258	3	-3.599800e-01
1259	2	-5.514197e-01
1260	5	-1.941451e-01
1261	4	3.005204e-01
1262	1	-2.834734e-01
1263	3	-5.000000e-01
1264	2	1.740777e-01
1265	3	0.000000e+00
1266	5	0.000000e+00
1267	5	-3.744226e-01
1268	2	2.454951e-01
1269	3	-9.449112e-02
1270	4	0.000000e+00
1271	5	5.000000e-01
1272	2	0.000000e+00
1273	2	0.000000e+00
1274	4	3.577709e-01
1275	3	0.000000e+00
1276	5	-4.666667e-01
1277	4	5.102520e-01
1278	4	-5.142956e-01
1279	3	-1.250000e-01
1280	3	0.000000e+00
1281	2	1.632993e-01
1282	3	0.000000e+00

1283	5	-4.585303e-01
1284	2	2.834734e-01
1285	5	-1.511858e-01
1286	2	1.386750e-01
1287	5	5.000000e-01
1288	1	1.940285e-01
1289	3	0.000000e+00
1290	4	0.000000e+00
1291	4	6.524715e-01
1292	3	-7.537784e-02
1293	3	3.882901e-01
1294	4	0.000000e+00
1295	4	-2.412091e-01
1296	1	1.507557e-01
1297	3	0.000000e+00
1298	3	0.000000e+00
1299	5	3.265986e-01
1300	4	-5.750000e-02
1301	4	1.272792e+00
1302	2	0.000000e+00
1303	5	6.037384e-01
1304	3	-7.500000e-01
1305	1	7.905694e-02
1306	3	0.000000e+00
1307	4	3.750000e-01
1308	5	3.750000e-01
1309	3	-1.443376e-01
1310	2	0.000000e+00
1311	4	2.771609e-01
1312	5	3.354102e-01
1313	3	0.000000e+00
1314	4	0.000000e+00
1315	3	5.442688e-01
1316	3	-8.333333e-02
1317	3	1.581139e-01
1318	3	-1.511858e-01
1319	5	3.166667e-01
1320	1	2.828427e-01
1321	4	-3.354102e-01
1322	2	1.767767e-02
1323	2	0.000000e+00
1324	3	0.000000e+00
1325	5	1.500000e-01

1326	2	0.000000e+00
1327	5	3.354102e-01
1328	3	-2.236068e-01
1329	3	-2.309401e-01
1330	4	2.886751e-01
1331	4	4.618802e-01
1332	3	8.000000e-02
1333	3	-6.324555e-01
1334	3	0.000000e+00
1335	2	1.889822e-01
1336	5	7.505553e-01
1337	4	0.000000e+00
1338	4	4.618802e-01
1339	4	-3.219938e-01
1340	3	-4.286607e-01
1341	4	7.826238e-01
1342	2	-1.000000e+00
1343	3	0.000000e+00
1344	3	1.414214e-01
1345	3	3.474396e-01
1346	3	-3.750000e-01
1347	3	-2.500000e-01
1348	4	0.000000e+00
1349	4	4.500000e-01
1350	5	-3.336231e-01
1351	3	0.000000e+00
1352	5	-1.336306e-02
1353	3	0.000000e+00
1354	1	5.000000e-01
1355	3	2.041241e-01
1356	4	3.354102e-01
1357	3	4.724556e-01
1358	4	-3.181981e-01
1359	5	1.909407e+00
1360	5	3.181981e-01
1361	3	-1.133893e-01
1362	2	0.000000e+00
1363	1	1.154701e-01
1364	2	-1.511858e-01
1365	3	5.102520e-01
1366	4	3.000000e-01
1367	4	4.333333e-01
1368	4	0.000000e+00

1369	4	0.000000e+00
1370	4	0.000000e+00
1371	5	0.000000e+00
1372	5	6.363961e-01
1373	4	0.000000e+00
1374	3	0.000000e+00
1375	3	2.400000e-01
1376	5	3.750000e-01
1377	3	0.000000e+00
1378	3	0.000000e+00
1379	1	0.000000e+00
1380	3	-8.944272e-02
1381	2	2.004459e-01
1382	3	-6.184658e-01
1383	3	5.303301e-01
1384	3	2.500000e-02
1385	3	6.823561e-01
1386	3	0.000000e+00
1387	4	8.029551e-02
1388	2	-2.298097e-01
1389	3	0.000000e+00
1390	4	0.000000e+00
1391	4	7.794229e-01
1392	2	-2.371708e-01
1393	5	6.750000e-01
1394	3	0.000000e+00
1395	3	0.000000e+00
1396	2	4.743416e-01
1397	4	4.359472e-01
1398	5	0.000000e+00
1399	3	0.000000e+00
1400	4	1.889822e-01
1401	4	3.535534e-01
1402	3	0.000000e+00
1403	4	0.000000e+00
1404	5	0.000000e+00
1405	5	-2.795085e-01
1406	2	0.000000e+00
1407	3	2.245366e-01
1408	3	2.065591e-01
1409	1	-5.303301e-01
1410	2	7.826238e-01
1411	3	0.000000e+00

1412	3	-2.790526e-01
1413	5	0.000000e+00
1414	5	0.000000e+00
1415	4	2.236068e-01
1416	5	0.000000e+00
1417	2	-8.728716e-02
1418	4	6.151175e-01
1419	3	0.000000e+00
1420	2	-1.666667e-01
1421	2	-4.714045e-01
1422	4	1.202676e-01
1423	2	-2.500000e-01
1424	2	-3.636619e-01
1425	3	0.000000e+00
1426	2	7.442669e-02
1427	1	1.914854e-01
1428	4	8.000000e-01
1429	5	6.324555e-01
1430	2	-5.303301e-01
1431	5	2.357023e-01
1432	3	0.000000e+00
1433	4	-1.264911e-01
1434	2	0.000000e+00
1435	4	0.000000e+00
1436	4	3.015113e-01
1437	3	1.982481e-01
1438	5	0.000000e+00
1439	4	-1.819017e-01
1440	4	3.674235e-01
1441	4	6.235383e-01
1442	4	0.000000e+00
1443	5	-1.000000e-01
1444	3	3.726207e-01
1445	2	0.000000e+00
1446	5	2.200000e-01
1447	3	2.267787e-01
1448	5	0.000000e+00
1449	1	2.500000e-03
1450	4	1.809068e-01
1451	3	-1.581139e-01
1452	5	2.984503e-01
1453	5	-1.154701e-01
1454	1	0.000000e+00

1455	3	3.354102e-01
1456	3	-1.678293e-01
1457	4	2.672612e-02
1458	3	-3.712311e-01
1459	4	1.455214e-01
1460	4	-3.023716e-01
1461	3	5.669467e-02
1462	5	-1.206045e-01
1463	5	1.020621e-01
1464	4	4.008919e-02
1465	3	0.000000e+00
1466	3	-7.826238e-02
1467	3	4.596194e-01
1468	2	1.581139e-01
1469	3	1.264911e-01
1470	4	4.300000e-01
1471	3	0.000000e+00
1472	5	0.000000e+00
1473	4	-1.333333e-01
1474	2	0.000000e+00
1475	3	-1.511858e-01
1476	5	0.000000e+00
1477	5	1.000000e+00
1478	4	3.150000e-01
1479	4	6.784005e-02
1480	3	1.154701e-01
1481	4	-7.500000e-01
1482	3	4.024922e-01
1483	4	3.333333e-02
1484	5	5.303301e-01
1485	3	-6.933752e-02
1486	4	0.000000e+00
1487	5	1.216661e-01
1488	4	2.041241e-01
1489	3	3.354102e-01
1490	4	0.000000e+00
1491	2	1.666667e-02
1492	1	1.055290e-01
1493	3	0.000000e+00
1494	3	-1.563858e-01
1495	4	2.236068e-01
1496	1	0.000000e+00
1497	3	0.000000e+00

1498	5	0.000000e+00
1499	4	0.000000e+00
1500	5	1.166726e-01
1501	3	1.732051e-01
1502	3	-7.559289e-02
1503	4	-1.109400e-01
1504	4	4.472136e-02
1505	3	0.000000e+00
1506	5	1.203356e-01
1507	3	-4.286607e-01
1508	3	0.000000e+00
1509	3	2.878278e-01
1510	4	-3.286335e-01
1511	2	0.000000e+00
1512	1	-5.319061e-01
1513	4	4.109975e-02
1514	3	-3.061862e-01
1515	4	0.000000e+00
1516	4	2.261335e-01
1517	5	-1.897367e-01
1518	4	0.000000e+00
1519	3	-6.864065e-02
1520	4	0.000000e+00
1521	4	-4.330127e-02
1522	3	-2.694080e-02
1523	3	-2.132007e-02
1524	3	2.132007e-02
1525	5	3.061862e-01
1526	3	-4.242641e-01
1527	5	5.480485e-01
1528	2	0.000000e+00
1529	2	-3.535534e-02
1530	3	1.386750e-01
1531	3	-3.779645e-02
1532	3	-8.111071e-03
1533	2	1.668115e-01
1534	3	8.333333e-02
1535	2	0.000000e+00
1536	4	2.182821e-01
1537	4	2.875000e-01
1538	5	0.000000e+00
1539	5	3.073504e-01
1540	4	4.510671e-01

1541	4	0.000000e+00
1542	1	1.091089e-01
1543	3	0.000000e+00
1544	1	0.000000e+00
1545	4	-7.071068e-01
1546	4	0.000000e+00
1547	4	-3.568871e-01
1548	3	-1.636634e-01
1549	2	-1.511858e-01
1550	4	-6.567359e-01
1551	2	0.000000e+00
1552	5	2.672612e-02
1553	4	-2.500000e-01
1554	5	3.464102e-01
1555	3	0.000000e+00
1556	3	1.819017e-01
1557	2	-1.511858e-01
1558	4	7.071068e-02
1559	5	0.000000e+00
1560	5	2.651650e-01
1561	2	8.333333e-02
1562	4	0.000000e+00
1563	3	2.309401e-01
1564	5	-2.721344e-01
1565	3	-1.632993e-01
1566	4	1.875000e-01
1567	5	2.571478e-01
1568	4	2.496151e-01
1569	2	1.889822e-01
1570	2	0.000000e+00
1571	4	0.000000e+00
1572	2	-4.014775e-01
1573	3	8.049845e-01
1574	4	1.229837e-01
1575	2	0.000000e+00
1576	4	-3.064129e-01
1577	1	0.000000e+00
1578	5	9.701425e-02
1579	4	-1.767767e-01
1580	4	-1.000000e-01
1581	5	0.000000e+00
1582	3	-2.713602e-01
1583	3	-4.160251e-02

1584	1	2.261335e-01
1585	3	1.428869e-01
1586	4	1.732051e-01
1587	4	6.010408e-01
1588	4	-5.335784e-01
1589	4	1.530931e-01
1590	4	3.818813e-01
1591	4	4.000000e-01
1592	2	1.300000e-01
1593	5	5.773503e-01
1594	1	4.913538e-01
1595	2	-2.001893e-01
1596	4	0.000000e+00
1597	2	-2.500000e-01
1598	4	-1.114741e-01
1599	5	-1.530931e-01
1600	5	6.250000e-01
1601	3	0.000000e+00
1602	5	2.236068e-01
1603	4	-1.329850e-01
1604	3	0.000000e+00
1605	2	2.425356e-02
1606	4	3.061862e-01
1607	2	-5.455447e-02
1608	5	5.442688e-01
1609	3	-2.055480e-01
1610	3	-2.546624e-01
1611	5	2.165064e-01
1612	5	1.026195e+00
1613	5	4.831896e-01
1614	4	5.138701e-01
1615	1	4.244191e-01
1616	4	7.379024e-01
1617	4	0.000000e+00
1618	4	-4.795832e-01
1619	3	0.000000e+00
1620	3	0.000000e+00
1621	5	1.500000e-01
1622	4	5.735393e-01
1623	4	1.091410e-01
1624	3	2.665583e-01
1625	4	3.750000e-01
1626	5	1.636634e-01

1627	4	2.834734e-01
1628	5	0.000000e+00
1629	4	-3.354102e-01
1630	1	7.117191e-01
1631	4	5.163978e-02
1632	1	3.023716e-01
1633	3	9.428090e-02
1634	2	3.061862e-01
1635	5	3.577709e-01
1636	1	-2.683282e-01
1637	3	0.000000e+00
1638	5	2.672612e-02
1639	3	0.000000e+00
1640	4	-7.624929e-03
1641	5	0.000000e+00
1642	3	1.118034e-01
1643	2	1.312500e+00
1644	5	4.618802e-01
1645	1	0.000000e+00
1646	5	1.941451e-01
1647	3	-1.118034e-01
1648	2	2.773501e-02
1649	4	-1.414214e-01
1650	3	0.000000e+00
1651	5	3.198011e-01
1652	3	0.000000e+00
1653	5	6.184658e-01
1654	2	1.030021e-01
1655	1	-2.218801e-01
1656	1	9.036961e-02
1657	3	3.466876e-01
1658	4	0.000000e+00
1659	3	0.000000e+00
1660	5	1.581139e-01
1661	3	0.000000e+00
1662	3	4.024922e-01
1663	3	2.886751e-01
1664	3	2.828427e-01
1665	2	2.711088e-01
1666	5	2.517531e-01
1667	4	-3.377499e-01
1668	1	0.000000e+00
1669	4	5.196152e-01

1670	1	0.000000e+00
1671	5	5.677750e-02
1672	2	-5.008029e-01
1673	4	2.400397e-01
1674	2	-1.897367e-01
1675	2	0.000000e+00
1676	1	-5.155833e-02
1677	4	8.685990e-01
1678	2	1.443376e-01
1679	5	-1.939179e-01
1680	4	2.651650e-01
1681	5	-1.250000e-01
1682	5	1.796053e-02
1683	5	1.700000e-01
1684	3	0.000000e+00
1685	1	1.251086e-01
1686	1	3.380617e-02
1687	5	1.897367e-01
1688	3	5.166667e-01
1689	5	4.896989e-01
1690	4	2.886751e-01
1691	4	4.221159e-01
1692	4	0.000000e+00
1693	4	-5.773503e-01
1694	3	0.000000e+00
1695	3	0.000000e+00
1696	4	2.165064e-01
1697	1	2.592725e-01
1698	4	4.160251e-02
1699	3	2.261335e-01
1700	3	8.838835e-02
1701	3	0.000000e+00
1702	4	0.000000e+00
1703	1	-1.414214e-01
1704	5	0.000000e+00
1705	5	2.236068e-01
1706	3	0.000000e+00
1707	4	0.000000e+00
1708	4	3.367877e-01
1709	5	-2.267787e-01
1710	5	-2.294157e-02
1711	3	0.000000e+00
1712	3	-2.773501e-02

1713	4	2.267787e-01
1714	5	4.427189e-01
1715	2	-8.340577e-02
1716	1	0.000000e+00
1717	5	5.858449e-01
1718	4	1.206045e-01
1719	3	2.041241e-01
1720	3	0.000000e+00
1721	3	-2.261335e-01
1722	3	0.000000e+00
1723	2	7.099404e-01
1724	2	0.000000e+00
1725	2	5.051815e-01
1726	4	-3.023716e-02
1727	4	3.759302e-01
1728	4	0.000000e+00
1729	2	4.170288e-02
1730	2	-1.632993e-01
1731	3	-2.408865e-01
1732	1	4.875000e-01
1733	3	5.773503e-01
1734	5	0.000000e+00
1735	5	3.265986e-01
1736	5	-3.244428e-02
1737	1	0.000000e+00
1738	3	2.041241e-01
1739	4	2.405351e-01
1740	5	3.098387e-01
1741	4	3.265986e-01
1742	4	-3.061862e-01
1743	4	-8.825226e-02
1744	4	-3.307475e-01
1745	4	1.875000e-01
1746	4	1.875000e-01
1747	4	-1.039402e-01
1748	2	0.000000e+00
1749	5	2.672612e-02
1750	2	1.788854e-01
1751	4	2.828427e-01
1752	4	2.474874e-01
1753	4	-3.127716e-02
1754	4	2.651650e-01
1755	5	0.000000e+00

1756	5	2.218801e-02
1757	5	0.000000e+00
1758	4	2.834734e-01
1759	4	-3.181981e-01
1760	4	-4.021576e-01
1761	5	0.000000e+00
1762	5	8.944272e-02
1763	5	0.000000e+00
1764	2	1.664101e-01
1765	1	-3.333333e-01
1766	4	-4.419417e-02
1767	4	-1.511858e-01
1768	3	-2.834734e-01
1769	3	-2.500000e-02
1770	3	-8.333333e-02
1771	4	2.004459e-01
1772	4	0.000000e+00
1773	4	0.000000e+00
1774	4	-1.581139e-01
1775	1	-2.598076e-01
1776	5	5.387995e-01
1777	4	6.182821e-01
1778	4	2.261335e-01
1779	3	-8.660254e-02
1780	4	5.883484e-01
1781	4	6.546537e-02
1782	4	1.581139e-02
1783	5	-4.242641e-01
1784	3	-3.750000e-01
1785	4	2.386485e-01
1786	1	-3.467380e-01
1787	4	3.162278e-01
1788	3	3.535534e-01
1789	4	2.333333e-01
1790	3	5.000000e-01
1791	4	1.833333e-01
1792	3	0.000000e+00
1793	4	0.000000e+00
1794	3	5.892557e-02
1795	3	1.443376e-01
1796	5	6.000000e-01
1797	3	-1.507557e-01
1798	3	0.000000e+00

1799	3	0.000000e+00
1800	3	2.834734e-01
1801	4	0.000000e+00
1802	4	4.543441e-01
1803	4	1.889822e-01
1804	3	-3.617260e-01
1805	2	-3.023459e-01
1806	2	2.267787e-01
1807	3	-5.212860e-02
1808	4	0.000000e+00
1809	2	1.443376e-01
1810	1	2.182179e-02
1811	3	0.000000e+00
1812	3	-5.144958e-02
1813	3	0.000000e+00
1814	5	-2.733333e-01
1815	5	2.182821e-01
1816	3	0.000000e+00
1817	3	3.143093e-01
1818	4	4.110961e-01
1819	5	2.236068e-01
1820	5	-1.680336e-01
1821	4	4.919350e-01
1822	3	2.932067e-02
1823	3	0.000000e+00
1824	2	-2.055480e-01
1825	2	0.000000e+00
1826	4	1.068098e+00
1827	5	-8.164966e-02
1828	2	3.750000e-01
1829	4	6.614378e-02
1830	2	-7.537784e-02
1831	3	1.745743e-01
1832	3	0.000000e+00
1833	5	0.000000e+00
1834	4	0.000000e+00
1835	5	-2.500000e-01
1836	2	-1.330266e-01
1837	4	4.242641e-01
1838	3	-1.835326e-01
1839	4	3.750000e-02
1840	1	-6.110101e-02
1841	3	2.878210e-01

1842	4	5.303301e-01
1843	3	0.000000e+00
1844	5	2.371708e-01
1845	2	0.000000e+00
1846	5	4.333333e-01
1847	5	0.000000e+00
1848	4	2.529822e-01
1849	5	5.000000e-01
1850	3	3.535534e-01
1851	2	6.250000e-01
1852	2	1.333333e-01
1853	3	0.000000e+00
1854	3	0.000000e+00
1855	2	0.000000e+00
1856	5	5.000000e-01
1857	5	-5.000000e-01
1858	4	0.000000e+00
1859	3	-3.000000e-01
1860	4	2.834734e-01
1861	4	0.000000e+00
1862	3	0.000000e+00
1863	3	0.000000e+00
1864	2	4.724556e-01
1865	2	7.216878e-02
1866	3	0.000000e+00
1867	3	0.000000e+00
1868	3	2.041241e-01
1869	4	0.000000e+00
1870	3	-3.333333e-01
1871	1	7.144345e-02
1872	3	-3.252640e-01
1873	3	4.522670e-01
1874	4	5.000000e-02
1875	4	3.779645e-01
1876	3	1.936492e-04
1877	4	0.000000e+00
1878	1	5.442688e-01
1879	3	2.400397e-01
1880	3	0.000000e+00
1881	4	0.000000e+00
1882	4	1.507557e-01
1883	4	9.799119e-02
1884	2	0.000000e+00

1885	1	-4.286607e-01
1886	2	2.672612e-02
1887	4	6.372794e-01
1888	5	0.000000e+00
1889	5	3.265986e-01
1890	3	2.941742e-02
1891	4	2.269466e-01
1892	3	1.455214e-01
1893	4	0.000000e+00
1894	4	-1.109400e-01
1895	4	-3.544745e-01
1896	2	0.000000e+00
1897	4	2.529822e-01
1898	4	1.767767e-01
1899	3	3.015113e-01
1900	2	-2.371708e-01
1901	2	-3.244996e-01
1902	4	0.000000e+00
1903	1	0.000000e+00
1904	4	3.577709e-01
1905	3	0.000000e+00
1906	4	2.500000e-01
1907	5	7.905694e-02
1908	4	1.118034e-01
1909	1	2.919202e-01
1910	5	1.200490e-01
1911	3	3.995025e-01
1912	2	-2.600000e-01
1913	2	4.409810e-01
1914	4	2.061654e-01
1915	4	-5.773503e-01
1916	3	6.091045e-01
1917	3	0.000000e+00
1918	4	-1.118034e-01
1919	3	-2.000000e-01
1920	1	-1.837117e-01
1921	3	0.000000e+00
1922	3	5.353307e-02
1923	3	-1.632993e-01
1924	4	4.274545e-01
1925	2	9.750000e-02
1926	3	-8.451543e-02
1927	4	7.462025e-02

1928	5	4.110961e-01
1929	5	4.336822e-01
1930	2	2.652593e-01
1931	4	-8.728716e-02
1932	3	0.000000e+00
1933	3	-2.683282e-01
1934	3	-1.386750e-01
1935	3	-1.788854e-01
1936	4	4.250000e-01
1937	3	-5.837172e-01
1938	5	-3.505808e-02
1939	2	-1.949801e-01
1940	5	0.000000e+00
1941	3	5.166667e-01
1942	3	1.767767e-01
1943	3	-9.449112e-02
1944	4	2.425356e-02
1945	5	1.854852e-01
1946	2	0.000000e+00
1947	2	-3.326528e-01
1948	2	0.000000e+00
1949	4	1.652330e-01
1950	2	-2.672612e-01
1951	4	-1.459601e-01
1952	2	6.708204e-02
1953	5	1.809068e-01
1954	4	0.000000e+00
1955	3	4.083333e-01
1956	3	0.000000e+00
1957	5	0.000000e+00
1958	2	-1.264911e-01
1959	4	1.885618e-01
1960	4	-1.491202e-01
1961	4	0.000000e+00
1962	5	5.480078e-01
1963	3	-1.511858e-01
1964	5	2.666667e-01
1965	3	-4.772971e-01
1966	5	3.125000e-01
1967	3	3.354102e-01
1968	4	3.227486e-01
1969	4	4.221159e-01
1970	4	1.272792e+00

1971	2	0.000000e+00
1972	5	0.000000e+00
1973	2	0.000000e+00
1974	2	2.886751e-02
1975	5	5.480078e-01
1976	5	0.000000e+00
1977	3	1.788854e-01
1978	2	6.531973e-01
1979	3	-1.819017e-01
1980	4	-3.198011e-02
1981	3	0.000000e+00
1982	3	-5.000000e-01
1983	5	0.000000e+00
1984	3	-9.354143e-02
1985	4	6.327849e-01
1986	4	2.500000e-01
1987	5	9.545942e-01
1988	4	4.330127e-02
1989	5	4.850713e-02
1990	4	-8.333333e-02
1991	1	-4.695743e-01
1992	5	-6.030227e-02
1993	3	-3.008915e-01
1994	3	0.000000e+00
1995	5	3.061862e-01
1996	4	0.000000e+00
1997	3	0.000000e+00
1998	4	2.638281e-01
1999	4	5.303301e-01
2000	3	-3.779645e-01
2001	2	2.651650e-01
2002	5	0.000000e+00
2003	4	-7.216878e-02
2004	4	0.000000e+00
2005	5	2.828427e-01
2006	4	-2.431282e-01

```
df <- head(response, 1000)
```

```
df
```

```
# A tibble: 1,000 x 2
  reason                                opinion
  <chr>                                <dbl>
1 Ifisbd kz e zkx dnx                  3
2 Because its a choice I pick the answer 2
3 Im not sure                          4
4 I consider what they do with the technology 4
5 Nothing                              4
6 Jjhh ask her not sure how I will not go 3
7 The economy, the global impact        5
8 Safety of other country                3
9 Cant let them have too much information 4
10 How do                               1
# i 990 more rows
```

```
#mutate(score = get_sentiment(reason))
#for (x in 1:nrow(df)) {
  #print(df$reason[x])
  #print(get_sentiment(df$reason[x]))
# print(paste0(x, get_sentiment(df$reason[x])))
#}

#vr = (get_sentiment(df$reason[31]))
print("-----")
```

```
[1] "-----"
```

```
vr = sentiment(df$reason[775])
typeof(vr)
```

```
[1] "list"
```

```
vr
```

```
element_id sentence_id word_count sentiment
1:          1          1          38 0.4266423
```

```
response$reason[775]
```

```
[1] "I love and support the US and many have lose their life defend our country,god bless our"
```

```
get_sentiment("I do believe we should send any drone anywhere")
```

```
[1] -0.1333333
```

```
get_sentiment("Its a privacy violation")
```

```
[1] -0.25
```

```
# Basically the issue is that the sentence is split by punctuation. Remove all full stops
```

```
score_responses <- response |>
  mutate(score = get_sentiment(reason)) |>
  arrange(score)
```

Warning: There was 1 warning in `mutate()`.

i In argument: `score = get_sentiment(reason)`.

Caused by warning:

! Each time `sentiment` is run it has to do sentence boundary disambiguation when a raw `character` vector is passed to `text.var`. This may be costly of time and memory. It is highly recommended that the user first runs the raw `character` vector through the `get_sentences` function.

```
score_min_max = rbind(head(score_responses, 10), tail(score_responses, 10))
score_min_max
```

```
# A tibble: 20 x 3
```

reason	opinion	score
<chr>	<dbl>	<dbl>
1 Terrorist	4	-1
2 Illegal	2	-1
3 I consider the privacy issue involve Also that of insurance A~	2	-0.866
4 strike kill civilian	4	-0.866
5 The disgust proliferation of drone warfare	2	-0.776
6 restriction	3	-0.75

7	feel invasive and sneaky	3	-0.75
8	Terrorism	4	-0.75
9	Danger of misuse	3	-0.722
10	Terrorist country	4	-0.707
11	Its really good and fun	4	1.21
12	Humanitarian purpose be easy to justify than for intelligence	3	1.25
13	Humanitarian assistance	4	1.27
14	Humanitarian assistance	4	1.27
15	To support our ally because they provide safety and easy to n~	2	1.31
16	be very good and very interest and comfortable	5	1.47
17	Its very good and very interest and reliable and interest but~	4	1.49
18	Because its very interest and very good and very nice	4	1.63
19	hello good even babe good morning babe good night love you me~	4	1.65
20	thank so I love you love love dear love you dear dear love de~	5	1.91

```
grid.table(score_min_max)
```

terrorist
Illegal
ation of damage cause by fail drone And furthermore the copyright infringement of
strike kill civilian
The disgust proliferation of drone warfare
restriction
feel invasive and sneaky
Terrorism
Danger of misuse
Terrorist country
Its really good and fun
Humanitarian purpose be easy to justify than for intelligence
Humanitarian assistance
Humanitarian assistance
/ because they provide safety and easy to navigate , precision good than aircraft
be very good and very interest and comfortable
and interest but I love love you too miss miss you too miss you guy very good an
Because its very interest and very good and very nice
o babe good morning babe good night love you merry merry dear dear amen