

R Notebook

This is an R Markdown Notebook. When you execute code within the notebook, the results appear beneath the code.

Try executing this chunk by clicking the *Run* button within the chunk or by placing your cursor inside it and pressing *Ctrl+Shift+Enter*.

```
#commented as it asks for restarting R
#install.packages("remotes")
#remotes::install_github("Shreya-Vaish/BSE658") #saves them to temp, how can i check?
library(tidyverse)
```

```
## -- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
## v dplyr      1.1.4      v readr      2.1.5
## v forcats    1.0.0      v stringr   1.5.1
## v ggplot2    3.5.1      v tibble    3.2.1
## v lubridate  1.9.3      v tidyr     1.3.1
## v purrr      1.0.2
## -- 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 errors
```

```
library(dplyr)
library(tibble)
```

Add a new chunk by clicking the *Insert Chunk* button on the toolbar or by pressing *Ctrl+Alt+I*.

When you save the notebook, an HTML file containing the code and output will be saved alongside it (click the *Preview* button or press *Ctrl+Shift+K* to preview the HTML file).

The preview shows you a rendered HTML copy of the contents of the editor. Consequently, unlike *Knit*, *Preview* does not run any R code chunks. Instead, the output of the chunk when it was last run in the editor is displayed.

```
getwd()
```

```
## [1] "C:/Users/ushad/Documents/GitHub/BSE658/Module 1"
```

```
smokeban<-read_csv("C:\\Users\\ushad\\Downloads\\SmokeBan.csv")
```

```
## Rows: 10000 Columns: 8
## -- Column specification -----
## Delimiter: ","
## chr (6): smoker, ban, education, afam, hispanic, gender
## dbl (2): rownames, age
```

```
##
## 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.
```

```
#use double backslash or forward slashes
```

```
spec(smokeban)
```

```
## cols(
##   rownames = col_double(),
##   smoker = col_character(),
##   ban = col_character(),
##   age = col_double(),
##   education = col_character(),
##   afam = col_character(),
##   hispanic = col_character(),
##   gender = col_character()
## )
```

```
##?cols_condense
```

```
##?spec
```

```
smokeban
```

```
## # A tibble: 10,000 x 8
##   rownames smoker ban      age education      afam hispanic gender
##   <dbl> <chr> <chr> <dbl> <chr>      <chr> <chr> <chr>
## 1      1 yes yes      41 hs          no no female
## 2      2 yes yes      44 some college no no female
## 3      3 no no      19 some college no no female
## 4      4 yes no      29 hs          no no female
## 5      5 no yes      28 some college no no female
## 6      6 no no      40 some college no no male
## 7      7 yes yes      47 some college no no female
## 8      8 yes no      36 some college no no male
## 9      9 no yes      49 some college no no female
## 10    10 no no      44 some college no no male
## # i 9,990 more rows
```

```
#im ok with the coltype being displayed so I am not #going to make its display false or condense it
```

```
sum(is.na(smokeban$hispanic))
```

```
## [1] 0
```

```
filter(smokeban, hispanic=="yes" & smoker=="yes")
```

```
## # A tibble: 247 x 8
##   rownames smoker ban      age education      afam hispanic gender
##   <dbl> <chr> <chr> <dbl> <chr>      <chr> <chr> <chr>
## 1      56 yes yes      46 some college no yes female
```

```
## 2      85 yes    no      29 hs drop out no    yes    male
## 3     100 yes    no      28 hs drop out yes   yes    male
## 4     105 yes    yes     28 hs              no    yes    male
## 5     119 yes    no      67 hs              no    yes    male
## 6     142 yes    no      21 hs drop out no    yes    female
## 7     152 yes    yes     30 some college no    yes    female
## 8     156 yes    yes     21 hs              no    yes    male
## 9     161 yes    no      28 hs              no    yes    female
## 10    163 yes    no      24 hs drop out no    yes    female
## # i 237 more rows
```

```
youngsmokers<-nrow(filter(smokeban, age<25))
newnum<-youngsmokers/(nrow(smokeban))
newnum*100 #how to write this into a string?
```

```
## [1] 11.97
```

```
#select(smokeban, c(afam,hispanic))
select(smokeban, -c(afam,hispanic))
```

```
## # A tibble: 10,000 x 6
##   rownames smoker ban      age education  gender
##   <dbl> <chr> <chr> <dbl> <chr>    <chr>
## 1      1 yes    yes    41 hs      female
## 2      2 yes    yes    44 some college female
## 3      3 no     no     19 some college female
## 4      4 yes    no     29 hs      female
## 5      5 no     yes    28 some college female
## 6      6 no     no     40 some college male
## 7      7 yes    yes    47 some college female
## 8      8 yes    no     36 some college male
## 9      9 no     yes    49 some college female
## 10    10 no     no     44 some college male
## # i 9,990 more rows
```

```
newsel<-select(smokeban,smoker, age:afam) #afam means african american
newsel
```

```
## # A tibble: 10,000 x 4
##   smoker age education  afam
##   <chr> <dbl> <chr>    <chr>
## 1 yes    41 hs      no
## 2 yes    44 some college no
## 3 no     19 some college no
## 4 yes    29 hs      no
## 5 no     28 some college no
## 6 no     40 some college no
## 7 yes    47 some college no
## 8 yes    36 some college no
## 9 no     49 some college no
## 10 no    44 some college no
## # i 9,990 more rows
```

#Q2 answer was given already in q file

```
rename(smokeban, idk=afam)
```

```
## # A tibble: 10,000 x 8
##   rownames smoker ban      age education    idk  hispanic gender
##   <dbl> <chr> <chr> <dbl> <chr>      <chr> <chr> <chr>
## 1      1    yes  yes    41  hs          no    no    female
## 2      2    yes  yes    44 some college no    no    female
## 3      3    no   no     19 some college no    no    female
## 4      4    yes  no     29  hs          no    no    female
## 5      5    no   yes    28 some college no    no    female
## 6      6    no   no     40 some college no    no    male
## 7      7    yes  yes    47 some college no    no    female
## 8      8    yes  no     36 some college no    no    male
## 9      9    no   yes    49 some college no    no    female
## 10     10   no   no     44 some college no    no    male
## # i 9,990 more rows
```

```
smokeban
```

```
## # A tibble: 10,000 x 8
##   rownames smoker ban      age education    afam  hispanic gender
##   <dbl> <chr> <chr> <dbl> <chr>      <chr> <chr> <chr>
## 1      1    yes  yes    41  hs          no    no    female
## 2      2    yes  yes    44 some college no    no    female
## 3      3    no   no     19 some college no    no    female
## 4      4    yes  no     29  hs          no    no    female
## 5      5    no   yes    28 some college no    no    female
## 6      6    no   no     40 some college no    no    male
## 7      7    yes  yes    47 some college no    no    female
## 8      8    yes  no     36 some college no    no    male
## 9      9    no   yes    49 some college no    no    female
## 10     10   no   no     44 some college no    no    male
## # i 9,990 more rows
```

*#rename only shows a temporary change, in order to save #it, you need to assign it the the file like sm
#or assign to a new variable*

```
getwd()
```

```
## [1] "C:/Users/ushad/Documents/GitHub/BSE658/Module 1"
```

```
phddata<-read_csv("C:\\Users\\ushad\\Downloads\\PhDPublications.csv")
```

```
## Rows: 915 Columns: 7
## -- Column specification -----
## Delimiter: ","
## chr (2): gender, married
## dbl (5): rownames, articles, kids, prestige, mentor
##
## 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.
```

```
phddata
```

```
## # A tibble: 915 x 7
##   rownames articles gender married kids prestige mentor
##   <dbl>    <dbl> <chr>  <chr>  <dbl>    <dbl>  <dbl>
## 1         1         0 male   yes    0      2.52    7
## 2         2         0 female no     0      2.05    6
## 3         3         0 female no     0      3.75    6
## 4         4         0 male   yes    1      1.18    3
## 5         5         0 female no     0      3.75   26
## 6         6         0 female yes    2      3.59    2
## 7         7         0 female no     0      3.19    3
## 8         8         0 male   yes    2      2.96    4
## 9         9         0 male   no     0      4.62    6
## 10        10         0 female yes    0      1.25    0
## # i 905 more rows
```

```
newphddata<-mutate(phddata,success_dependency = prestige/mentor)
#mutate does not work unless you assign a variable to #the changed dataframe
arrange(newphddata,success_dependency)
```

```
## # A tibble: 915 x 8
##   rownames articles gender married kids prestige mentor success_dependency
##   <dbl>    <dbl> <chr>  <chr>  <dbl>    <dbl>  <dbl>    <dbl>
## 1      328         1 male   yes    1      1.78    77      0.0231
## 2      812         4 male   yes    1      1.86    47      0.0396
## 3      909         9 male   yes    1      1.86    47      0.0396
## 4      915        19 male   yes    0      1.86    42      0.0443
## 5      880         6 female yes    2      1.86    38      0.0489
## 6      303         1 male   yes    0      1.68    34      0.0494
## 7      799         4 male   yes    1      2.96    57      0.0519
## 8        12         0 female no     0      0.755   13      0.0581
## 9      879         6 female yes    0      2.10    36      0.0583
## 10     232         0 male   yes    1      1.68    27      0.0622
## # i 905 more rows
```

#prestige is for the graduate program and mentor means #number of papers a mentor has published

```
arrange(newphddata,desc(success_dependency))
```

```
## # A tibble: 915 x 8
##   rownames articles gender married kids prestige mentor success_dependency
##   <dbl>    <dbl> <chr>  <chr>  <dbl>    <dbl>  <dbl>    <dbl>
## 1        10         0 female yes    0      1.25    0      Inf
## 2        15         0 female yes    0      1.79    0      Inf
## 3        29         0 female no     0      3.09    0      Inf
## 4        31         0 female no     0      2.39    0      Inf
## 5        34         0 male   no     0      2.10    0      Inf
## 6        35         0 male   yes    1      1.52    0      Inf
## 7        36         0 female no     0      2      0      Inf
## 8        37         0 female no     0      1.75    0      Inf
```

```
## 9      46      0 male yes      1      1.18      0      Inf
## 10     52      0 female yes    2      1.97      0      Inf
## # i 905 more rows
```

#there are infinite values because some mentors have 0 #published papers!

```
write.csv(newphddata, file="newphddata.csv")
list.files()
```

```
## [1] "241180618_Rass_2a.nb.html"      "241180618_Rass_2a.pdf"
## [3] "241180618_Rass_2a.Rmd"          "newphddata.csv"
## [5] "Notebook for chapter 1.nb.html" "Notebook for chapter 1.Rmd"
## [7] "R notebook tutorial-2.Rmd"       "R notebook tutorial.nb.html"
## [9] "R notebook tutorial.Rmd"         "README.md"
```

```
getwd()
```

```
## [1] "C:/Users/ushad/Documents/GitHub/BSE658/Module 1"
```

```
read.csv(file="C:/Users/ushad/Documents/GitHub/BSE658/Module 2/newphddata.csv")
```

```
##      X rownames articles gender married kids prestige mentor
## 1      1      1      0 male yes      0      2.520      7
## 2      2      2      0 female no      0      2.050      6
## 3      3      3      0 female no      0      3.750      6
## 4      4      4      0 male yes      1      1.180      3
## 5      5      5      0 female no      0      3.750     26
## 6      6      6      0 female yes      2      3.590      2
## 7      7      7      0 female no      0      3.190      3
## 8      8      8      0 male yes      2      2.960      4
## 9      9      9      0 male no      0      4.620      6
## 10    10     10      0 female yes      0      1.250      0
## 11    11     11      0 male no      0      2.960     14
## 12    12     12      0 female no      0      0.755     13
## 13    13     13      0 female yes      1      3.690      3
## 14    14     14      0 female yes      0      3.400      4
## 15    15     15      0 female yes      0      1.790      0
## 16    16     16      0 female no      0      3.090      1
## 17    17     17      0 female yes      0      2.000      7
## 18    18     18      0 male yes      2      4.290     13
## 19    19     19      0 female no      0      3.360      7
## 20    20     20      0 female no      0      4.290      9
## 21    21     21      0 female yes      0      2.260      6
## 22    22     22      0 male yes      3      2.960      3
## 23    23     23      0 male yes      1      4.290      5
## 24    24     24      0 male yes      1      2.860      4
## 25    25     25      0 male yes      3      2.760      1
## 26    26     26      0 female yes      0      1.520      3
## 27    27     27      0 female yes      1      3.540      8
## 28    28     28      0 male yes      1      4.290      3
## 29    29     29      0 female no      0      3.090      0
```

## 30	30	30	0	male	yes	0	2.320	3
## 31	31	31	0	female	no	0	2.390	0
## 32	32	32	0	male	yes	0	4.290	8
## 33	33	33	0	female	no	0	1.505	13
## 34	34	34	0	male	no	0	2.100	0
## 35	35	35	0	male	yes	1	1.520	0
## 36	36	36	0	female	no	0	2.000	0
## 37	37	37	0	female	no	0	1.750	0
## 38	38	38	0	male	no	0	4.290	9
## 39	39	39	0	male	yes	1	1.220	2
## 40	40	40	0	female	yes	0	3.750	5
## 41	41	41	0	male	no	0	4.290	9
## 42	42	42	0	female	yes	1	2.860	3
## 43	43	43	0	male	no	0	3.920	5
## 44	44	44	0	female	yes	1	3.360	3
## 45	45	45	0	male	no	0	2.100	6
## 46	46	46	0	male	yes	1	1.180	0
## 47	47	47	0	male	yes	0	2.500	1
## 48	48	48	0	male	yes	0	3.360	25
## 49	49	49	0	female	no	0	4.540	14
## 50	50	50	0	female	yes	0	3.920	8
## 51	51	51	0	male	no	0	4.540	5
## 52	52	52	0	female	yes	2	1.970	0
## 53	53	53	0	male	yes	2	2.960	12
## 54	54	54	0	male	yes	0	4.290	8
## 55	55	55	0	male	yes	1	2.260	2
## 56	56	56	0	female	no	0	2.120	11
## 57	57	57	0	female	no	0	3.210	2
## 58	58	58	0	male	yes	1	3.150	1
## 59	59	59	0	male	yes	1	3.920	1
## 60	60	60	0	male	no	0	2.960	0
## 61	61	61	0	female	no	0	2.860	6
## 62	62	62	0	male	yes	1	2.100	0
## 63	63	63	0	female	no	0	3.750	4
## 64	64	64	0	female	yes	0	3.540	2
## 65	65	65	0	female	yes	0	2.540	1
## 66	66	66	0	male	yes	1	2.760	3
## 67	67	67	0	male	yes	0	4.540	10
## 68	68	68	0	male	yes	0	1.680	6
## 69	69	69	0	male	yes	1	2.200	0
## 70	70	70	0	female	no	0	1.005	0
## 71	71	71	0	male	no	0	2.120	2
## 72	72	72	0	female	yes	2	2.580	0
## 73	73	73	0	female	yes	0	1.790	1
## 74	74	74	0	male	no	0	4.290	2
## 75	75	75	0	female	yes	0	1.280	4
## 76	76	76	0	male	yes	2	2.580	5
## 77	77	77	0	male	yes	2	2.120	0
## 78	78	78	0	male	yes	1	2.210	1
## 79	79	79	0	male	yes	1	2.260	5
## 80	80	80	0	female	no	0	3.210	5
## 81	81	81	0	female	no	0	2.100	2
## 82	82	82	0	female	yes	1	3.540	1
## 83	83	83	0	male	yes	1	3.400	18

## 84	84	84	0	male	yes	0	2.210	6
## 85	85	85	0	male	yes	0	2.210	19
## 86	86	86	0	male	yes	2	0.920	1
## 87	87	87	0	female	no	0	4.290	35
## 88	88	88	0	male	yes	2	3.150	6
## 89	89	89	0	male	yes	0	4.290	19
## 90	90	90	0	male	yes	1	2.510	8
## 91	91	91	0	male	yes	1	4.290	1
## 92	92	92	0	female	yes	0	2.760	0
## 93	93	93	0	male	yes	0	1.420	3
## 94	94	94	0	male	yes	0	2.210	19
## 95	95	95	0	male	no	0	4.140	5
## 96	96	96	0	male	yes	0	1.520	7
## 97	97	97	0	male	no	0	4.620	8
## 98	98	98	0	female	no	0	3.620	7
## 99	99	99	0	female	yes	2	3.750	4
## 100	100	100	0	male	yes	0	4.290	8
## 101	101	101	0	female	no	0	3.750	5
## 102	102	102	0	male	yes	1	2.100	0
## 103	103	103	0	male	yes	2	1.400	7
## 104	104	104	0	female	yes	0	3.190	4
## 105	105	105	0	male	yes	2	1.810	1
## 106	106	106	0	male	yes	1	3.150	2
## 107	107	107	0	female	yes	0	3.750	7
## 108	108	108	0	female	no	0	2.050	6
## 109	109	109	0	male	yes	3	2.210	3
## 110	110	110	0	female	yes	2	3.360	2
## 111	111	111	0	female	yes	0	3.470	11
## 112	112	112	0	female	no	0	2.120	0
## 113	113	113	0	female	yes	1	3.360	2
## 114	114	114	0	male	yes	0	2.540	5
## 115	115	115	0	male	yes	2	2.150	4
## 116	116	116	0	male	yes	1	4.540	3
## 117	117	117	0	male	yes	0	1.680	4
## 118	118	118	0	female	yes	1	2.550	0
## 119	119	119	0	female	no	0	2.120	11
## 120	120	120	0	male	yes	1	3.470	2
## 121	121	121	0	female	yes	0	3.470	1
## 122	122	122	0	female	no	0	3.360	9
## 123	123	123	0	male	yes	1	2.120	10
## 124	124	124	0	female	no	0	2.100	1
## 125	125	125	0	female	no	0	4.290	1
## 126	126	126	0	male	yes	1	2.860	13
## 127	127	127	0	female	yes	1	4.290	9
## 128	128	128	0	male	yes	0	3.210	2
## 129	129	129	0	male	no	0	2.100	0
## 130	130	130	0	female	yes	0	1.810	5
## 131	131	131	0	female	no	0	2.520	2
## 132	132	132	0	male	yes	1	3.360	23
## 133	133	133	0	female	yes	0	4.540	4
## 134	134	134	0	female	yes	1	4.290	4
## 135	135	135	0	female	no	0	2.120	9
## 136	136	136	0	male	yes	2	4.620	30
## 137	137	137	0	female	yes	1	3.590	14

## 138	138	138	0 female	no	0	3.590	4
## 139	139	139	0 male	yes	3	2.860	1
## 140	140	140	0 female	no	0	1.505	3
## 141	141	141	0 female	yes	1	2.500	0
## 142	142	142	0 female	yes	0	4.620	0
## 143	143	143	0 male	no	0	2.500	0
## 144	144	144	0 female	yes	1	3.360	3
## 145	145	145	0 female	no	0	2.000	2
## 146	146	146	0 female	yes	2	3.410	5
## 147	147	147	0 male	yes	0	2.100	0
## 148	148	148	0 female	no	0	2.000	2
## 149	149	149	0 male	yes	0	3.360	2
## 150	150	150	0 male	yes	3	3.590	7
## 151	151	151	0 male	no	0	2.140	2
## 152	152	152	0 female	yes	0	3.590	12
## 153	153	153	0 female	no	0	2.390	10
## 154	154	154	0 male	yes	3	4.540	11
## 155	155	155	0 male	no	0	2.960	2
## 156	156	156	0 male	yes	1	2.210	5
## 157	157	157	0 male	yes	2	3.690	5
## 158	158	158	0 female	yes	0	1.780	1
## 159	159	159	0 female	no	0	2.860	11
## 160	160	160	0 male	yes	0	2.860	8
## 161	161	161	0 female	yes	0	2.580	3
## 162	162	162	0 female	no	0	3.750	1
## 163	163	163	0 female	yes	1	1.220	11
## 164	164	164	0 female	no	0	2.100	9
## 165	165	165	0 female	no	0	3.590	18
## 166	166	166	0 female	no	0	3.540	5
## 167	167	167	0 female	no	0	2.860	16
## 168	168	168	0 female	yes	0	1.860	6
## 169	169	169	0 male	yes	0	2.960	0
## 170	170	170	0 female	yes	0	3.690	7
## 171	171	171	0 female	yes	0	3.690	2
## 172	172	172	0 female	yes	0	4.290	1
## 173	173	173	0 female	no	0	2.520	1
## 174	174	174	0 female	no	0	1.760	10
## 175	175	175	0 male	yes	2	2.320	2
## 176	176	176	0 female	no	0	3.690	2
## 177	177	177	0 female	no	0	3.750	14
## 178	178	178	0 female	no	0	4.290	5
## 179	179	179	0 female	yes	2	4.540	6
## 180	180	180	0 male	yes	1	2.100	0
## 181	181	181	0 female	yes	1	2.540	0
## 182	182	182	0 male	yes	1	2.210	19
## 183	183	183	0 male	no	0	4.540	8
## 184	184	184	0 male	yes	1	2.100	12
## 185	185	185	0 male	no	0	2.260	5
## 186	186	186	0 female	yes	1	4.620	15
## 187	187	187	0 female	no	0	2.760	4
## 188	188	188	0 female	no	0	4.290	12
## 189	189	189	0 female	no	0	0.755	0
## 190	190	190	0 female	yes	0	1.830	2
## 191	191	191	0 female	no	0	1.790	0

##	192	192	192	0	female	yes	1	4.290	6
##	193	193	193	0	female	no	0	2.500	0
##	194	194	194	0	male	yes	0	2.140	1
##	195	195	195	0	male	yes	2	3.400	13
##	196	196	196	0	female	no	0	2.870	15
##	197	197	197	0	female	yes	0	2.960	0
##	198	198	198	0	female	yes	2	3.190	0
##	199	199	199	0	male	yes	1	3.690	16
##	200	200	200	0	female	yes	2	1.255	0
##	201	201	201	0	male	yes	2	4.140	12
##	202	202	202	0	male	yes	1	2.390	5
##	203	203	203	0	male	yes	2	3.920	2
##	204	204	204	0	female	no	0	2.960	4
##	205	205	205	0	female	yes	0	2.120	2
##	206	206	206	0	female	yes	2	2.120	1
##	207	207	207	0	female	yes	0	2.610	3
##	208	208	208	0	male	no	0	4.290	0
##	209	209	209	0	male	yes	3	2.860	7
##	210	210	210	0	female	yes	0	2.390	0
##	211	211	211	0	male	yes	2	3.340	1
##	212	212	212	0	female	no	0	3.620	8
##	213	213	213	0	female	yes	1	3.590	8
##	214	214	214	0	male	yes	2	4.540	1
##	215	215	215	0	female	yes	0	3.590	1
##	216	216	216	0	male	no	0	4.290	9
##	217	217	217	0	male	yes	0	1.520	4
##	218	218	218	0	male	yes	0	4.290	6
##	219	219	219	0	female	yes	0	4.620	5
##	220	220	220	0	male	yes	1	4.290	13
##	221	221	221	0	male	yes	0	2.510	3
##	222	222	222	0	male	no	0	2.860	3
##	223	223	223	0	female	yes	0	2.960	8
##	224	224	224	0	female	yes	0	3.690	3
##	225	225	225	0	female	yes	0	3.470	2
##	226	226	226	0	male	yes	2	4.290	15
##	227	227	227	0	male	no	0	4.290	0
##	228	228	228	0	female	no	0	3.920	1
##	229	229	229	0	female	yes	0	2.000	6
##	230	230	230	0	male	yes	0	2.320	4
##	231	231	231	0	female	yes	1	2.000	9
##	232	232	232	0	male	yes	1	1.680	27
##	233	233	233	0	male	no	0	3.470	0
##	234	234	234	0	male	yes	0	2.200	2
##	235	235	235	0	male	yes	1	2.120	10
##	236	236	236	0	female	no	0	1.400	14
##	237	237	237	0	female	no	0	3.360	3
##	238	238	238	0	male	yes	2	4.290	24
##	239	239	239	0	male	yes	1	2.100	0
##	240	240	240	0	male	no	0	4.290	5
##	241	241	241	0	female	no	0	4.290	0
##	242	242	242	0	female	no	0	2.830	1
##	243	243	243	0	male	yes	1	2.580	6
##	244	244	244	0	female	yes	0	3.150	7
##	245	245	245	0	male	no	0	4.290	2

##	246	246	246	0	male	no	0	2.960	0
##	247	247	247	0	male	yes	2	3.590	5
##	248	248	248	0	female	no	0	2.390	15
##	249	249	249	0	female	no	0	1.250	2
##	250	250	250	0	female	no	0	2.760	1
##	251	251	251	0	male	yes	0	3.400	13
##	252	252	252	0	male	no	0	4.290	7
##	253	253	253	0	female	no	0	3.690	4
##	254	254	254	0	female	yes	0	2.860	13
##	255	255	255	0	female	no	0	4.290	3
##	256	256	256	0	female	no	0	4.140	2
##	257	257	257	0	female	yes	0	2.390	2
##	258	258	258	0	male	yes	2	2.860	11
##	259	259	259	0	female	yes	0	2.960	7
##	260	260	260	0	male	no	0	3.590	8
##	261	261	261	0	male	yes	1	1.810	5
##	262	262	262	0	male	yes	1	4.290	2
##	263	263	263	0	male	yes	1	2.100	0
##	264	264	264	0	female	no	0	3.190	0
##	265	265	265	0	male	yes	2	4.290	2
##	266	266	266	0	male	yes	0	4.290	2
##	267	267	267	0	male	yes	2	3.400	0
##	268	268	268	0	male	no	0	4.290	35
##	269	269	269	0	male	yes	2	2.320	5
##	270	270	270	0	male	no	0	1.680	5
##	271	271	271	0	female	yes	0	2.580	0
##	272	272	272	0	male	yes	0	3.690	3
##	273	273	273	0	male	yes	2	3.410	7
##	274	274	274	0	male	yes	0	2.320	0
##	275	275	275	0	male	yes	1	3.690	8
##	276	276	276	1	male	yes	0	2.540	4
##	277	277	277	1	female	yes	1	1.760	4
##	278	278	278	1	male	yes	1	4.290	13
##	279	279	279	1	male	yes	3	2.100	0
##	280	280	280	1	female	yes	1	3.090	12
##	281	281	281	1	female	no	0	3.360	6
##	282	282	282	1	male	yes	0	2.100	0
##	283	283	283	1	female	yes	1	3.750	7
##	284	284	284	1	female	no	0	2.140	6
##	285	285	285	1	female	no	0	4.290	22
##	286	286	286	1	female	no	0	2.000	2
##	287	287	287	1	male	yes	0	2.000	4
##	288	288	288	1	male	yes	1	2.000	16
##	289	289	289	1	male	yes	1	2.610	6
##	290	290	290	1	male	yes	0	4.250	12
##	291	291	291	1	male	no	0	2.360	14
##	292	292	292	1	female	yes	0	4.290	11
##	293	293	293	1	male	yes	0	2.100	2
##	294	294	294	1	female	yes	0	2.870	5
##	295	295	295	1	female	yes	0	3.470	3
##	296	296	296	1	male	yes	0	1.780	1
##	297	297	297	1	male	yes	0	4.140	15
##	298	298	298	1	male	yes	3	4.290	0
##	299	299	299	1	male	no	0	4.290	3

## 300 300	300	1	male	no	0	1.810	10
## 301 301	301	1	female	no	0	2.320	15
## 302 302	302	1	female	yes	0	2.610	7
## 303 303	303	1	male	yes	0	1.680	34
## 304 304	304	1	female	yes	0	3.190	3
## 305 305	305	1	male	yes	1	3.590	5
## 306 306	306	1	male	yes	0	2.500	0
## 307 307	307	1	male	no	0	3.400	6
## 308 308	308	1	female	no	0	2.260	4
## 309 309	309	1	male	no	0	3.400	12
## 310 310	310	1	male	yes	1	3.920	0
## 311 311	311	1	male	yes	2	2.960	0
## 312 312	312	1	male	no	0	4.290	15
## 313 313	313	1	male	yes	0	4.290	11
## 314 314	314	1	female	yes	1	3.320	24
## 315 315	315	1	male	no	0	1.860	15
## 316 316	316	1	female	no	0	2.870	6
## 317 317	317	1	female	yes	0	1.640	22
## 318 318	318	1	female	no	0	2.250	7
## 319 319	319	1	female	no	0	2.100	8
## 320 320	320	1	female	yes	0	4.290	6
## 321 321	321	1	male	yes	0	1.750	3
## 322 322	322	1	male	yes	0	2.960	8
## 323 323	323	1	female	no	0	2.250	4
## 324 324	324	1	male	yes	2	4.250	20
## 325 325	325	1	male	yes	2	2.560	22
## 326 326	326	1	female	no	0	3.190	11
## 327 327	327	1	male	yes	2	3.920	2
## 328 328	328	1	male	yes	1	1.780	77
## 329 329	329	1	female	yes	0	3.400	14
## 330 330	330	1	male	yes	1	1.740	4
## 331 331	331	1	male	no	0	4.290	6
## 332 332	332	1	female	no	0	2.000	6
## 333 333	333	1	female	yes	0	2.870	18
## 334 334	334	1	male	yes	0	4.290	6
## 335 335	335	1	female	yes	0	3.190	2
## 336 336	336	1	male	yes	1	1.220	1
## 337 337	337	1	female	yes	2	3.540	17
## 338 338	338	1	male	yes	1	4.290	1
## 339 339	339	1	male	yes	1	4.620	3
## 340 340	340	1	female	no	0	2.000	6
## 341 341	341	1	female	no	0	3.590	3
## 342 342	342	1	female	no	0	3.190	6
## 343 343	343	1	male	yes	1	3.400	2
## 344 344	344	1	female	yes	0	1.280	2
## 345 345	345	1	male	yes	2	1.740	4
## 346 346	346	1	male	yes	1	2.260	1
## 347 347	347	1	female	yes	0	3.590	5
## 348 348	348	1	male	yes	1	4.620	16
## 349 349	349	1	female	no	0	1.400	2
## 350 350	350	1	female	no	0	0.920	4
## 351 351	351	1	male	yes	1	2.390	3
## 352 352	352	1	male	yes	0	2.260	1
## 353 353	353	1	male	yes	2	2.860	7

## 354 354	354	1	male	yes	2	2.760	8
## 355 355	355	1	male	yes	1	1.630	8
## 356 356	356	1	male	yes	2	4.290	12
## 357 357	357	1	female	no	0	1.400	3
## 358 358	358	1	female	yes	0	2.120	0
## 359 359	359	1	female	yes	1	2.610	6
## 360 360	360	1	male	yes	0	1.800	1
## 361 361	361	1	female	yes	0	4.290	21
## 362 362	362	1	female	no	0	3.690	18
## 363 363	363	1	female	yes	0	4.620	16
## 364 364	364	1	male	no	0	2.150	10
## 365 365	365	1	male	yes	2	2.100	0
## 366 366	366	1	female	yes	0	2.000	5
## 367 367	367	1	female	no	0	1.255	0
## 368 368	368	1	male	yes	2	1.750	2
## 369 369	369	1	female	no	0	3.850	2
## 370 370	370	1	male	no	0	4.250	4
## 371 371	371	1	female	no	0	3.470	3
## 372 372	372	1	male	yes	1	3.920	8
## 373 373	373	1	male	yes	2	2.510	3
## 374 374	374	1	female	no	0	1.400	12
## 375 375	375	1	male	yes	1	2.000	11
## 376 376	376	1	female	no	0	2.000	10
## 377 377	377	1	male	no	0	4.290	2
## 378 378	378	1	male	no	0	3.360	10
## 379 379	379	1	male	yes	0	4.620	1
## 380 380	380	1	male	yes	1	2.560	16
## 381 381	381	1	male	yes	0	4.620	18
## 382 382	382	1	male	yes	0	3.590	10
## 383 383	383	1	male	yes	2	4.290	6
## 384 384	384	1	female	no	0	3.590	8
## 385 385	385	1	female	no	0	4.290	6
## 386 386	386	1	male	yes	0	3.190	3
## 387 387	387	1	female	yes	0	3.590	1
## 388 388	388	1	female	yes	0	2.960	19
## 389 389	389	1	female	no	0	2.580	2
## 390 390	390	1	male	yes	3	2.960	6
## 391 391	391	1	female	yes	0	4.540	13
## 392 392	392	1	male	yes	1	4.540	10
## 393 393	393	1	male	yes	2	2.500	4
## 394 394	394	1	male	yes	0	1.680	8
## 395 395	395	1	male	yes	0	2.320	4
## 396 396	396	1	female	yes	3	3.190	9
## 397 397	397	1	female	no	0	2.210	2
## 398 398	398	1	female	yes	0	1.250	5
## 399 399	399	1	male	no	0	4.140	5
## 400 400	400	1	female	yes	0	4.620	4
## 401 401	401	1	female	no	0	4.540	37
## 402 402	402	1	female	yes	0	3.150	9
## 403 403	403	1	male	no	0	4.290	11
## 404 404	404	1	female	yes	0	1.950	3
## 405 405	405	1	male	no	0	2.000	9
## 406 406	406	1	female	yes	0	4.540	2
## 407 407	407	1	female	yes	2	2.580	2

## 408 408	408	1 female	yes	0	3.850	29
## 409 409	409	1 male	yes	1	3.410	10
## 410 410	410	1 female	yes	1	2.260	9
## 411 411	411	1 female	no	0	4.250	2
## 412 412	412	1 male	yes	1	3.590	6
## 413 413	413	1 female	yes	1	2.120	9
## 414 414	414	1 male	yes	0	2.960	7
## 415 415	415	1 female	no	0	2.520	0
## 416 416	416	1 female	no	0	2.260	4
## 417 417	417	1 female	no	0	4.540	9
## 418 418	418	1 female	yes	2	2.860	7
## 419 419	419	1 male	yes	0	4.540	2
## 420 420	420	1 male	yes	0	3.590	12
## 421 421	421	1 female	yes	0	4.620	18
## 422 422	422	1 male	yes	3	1.670	3
## 423 423	423	1 male	yes	2	1.750	1
## 424 424	424	1 female	yes	1	2.830	5
## 425 425	425	1 male	yes	3	3.150	11
## 426 426	426	1 male	yes	1	3.590	9
## 427 427	427	1 female	no	0	3.750	24
## 428 428	428	1 female	no	0	2.050	17
## 429 429	429	1 male	yes	0	4.290	0
## 430 430	430	1 male	yes	2	4.290	0
## 431 431	431	1 female	yes	0	2.390	7
## 432 432	432	1 male	yes	1	4.540	3
## 433 433	433	1 male	yes	0	2.320	4
## 434 434	434	1 female	no	0	4.290	25
## 435 435	435	1 male	yes	1	3.690	5
## 436 436	436	1 male	no	0	4.290	9
## 437 437	437	1 male	no	0	3.920	2
## 438 438	438	1 male	yes	0	2.760	5
## 439 439	439	1 male	no	0	2.760	6
## 440 440	440	1 male	yes	2	3.620	4
## 441 441	441	1 male	yes	1	4.290	14
## 442 442	442	1 male	no	0	2.870	12
## 443 443	443	1 female	yes	1	2.390	9
## 444 444	444	1 male	no	0	4.290	14
## 445 445	445	1 male	yes	0	1.780	4
## 446 446	446	1 male	yes	1	2.100	8
## 447 447	447	1 female	yes	0	2.250	3
## 448 448	448	1 male	yes	1	2.260	5
## 449 449	449	1 male	yes	0	1.860	5
## 450 450	450	1 female	no	0	3.920	4
## 451 451	451	1 male	yes	0	4.340	10
## 452 452	452	1 female	no	0	3.360	4
## 453 453	453	1 female	no	0	2.510	1
## 454 454	454	1 female	no	0	3.750	21
## 455 455	455	1 male	yes	1	4.540	45
## 456 456	456	1 female	no	0	1.630	8
## 457 457	457	1 female	no	0	4.620	10
## 458 458	458	1 male	yes	0	1.520	2
## 459 459	459	1 male	yes	0	2.550	11
## 460 460	460	1 female	yes	0	1.180	1
## 461 461	461	1 female	yes	2	3.090	9

## 462 462	462	1 female	no	0	4.620	5
## 463 463	463	1 female	yes	0	2.320	1
## 464 464	464	1 male	no	0	2.050	3
## 465 465	465	1 male	yes	0	4.290	1
## 466 466	466	1 male	no	0	3.400	2
## 467 467	467	1 male	no	0	4.290	10
## 468 468	468	1 male	yes	1	3.590	2
## 469 469	469	1 male	no	0	3.360	5
## 470 470	470	1 female	no	0	2.050	13
## 471 471	471	1 female	yes	0	3.590	32
## 472 472	472	1 female	no	0	3.850	18
## 473 473	473	1 male	no	0	3.360	0
## 474 474	474	1 female	yes	0	1.750	0
## 475 475	475	1 female	yes	0	3.470	3
## 476 476	476	1 male	yes	1	2.610	4
## 477 477	477	1 male	no	0	2.760	4
## 478 478	478	1 male	yes	2	4.290	9
## 479 479	479	1 female	no	0	1.400	3
## 480 480	480	1 female	yes	0	4.620	18
## 481 481	481	1 male	yes	1	2.860	17
## 482 482	482	1 male	yes	1	2.860	17
## 483 483	483	1 male	yes	0	2.860	39
## 484 484	484	1 male	no	0	2.000	7
## 485 485	485	1 female	yes	0	1.760	8
## 486 486	486	1 male	yes	0	2.500	0
## 487 487	487	1 female	no	0	4.290	17
## 488 488	488	1 male	no	0	2.560	16
## 489 489	489	1 female	yes	1	3.540	14
## 490 490	490	1 female	yes	0	3.690	1
## 491 491	491	1 male	no	0	2.870	5
## 492 492	492	1 female	no	0	1.655	0
## 493 493	493	1 male	yes	1	4.340	4
## 494 494	494	1 male	yes	0	3.540	11
## 495 495	495	1 male	yes	2	4.290	10
## 496 496	496	1 male	yes	0	1.810	0
## 497 497	497	1 female	no	0	3.400	7
## 498 498	498	1 male	yes	1	1.810	5
## 499 499	499	1 female	no	0	3.190	18
## 500 500	500	1 female	yes	1	2.320	5
## 501 501	501	1 female	no	0	4.540	19
## 502 502	502	1 male	yes	1	4.290	2
## 503 503	503	1 male	yes	1	2.860	2
## 504 504	504	1 female	yes	1	2.860	2
## 505 505	505	1 male	yes	1	1.220	0
## 506 506	506	1 male	yes	0	2.100	0
## 507 507	507	1 male	yes	1	1.680	12
## 508 508	508	1 female	no	0	3.360	34
## 509 509	509	1 female	yes	0	2.870	15
## 510 510	510	1 male	yes	1	3.470	1
## 511 511	511	1 male	no	0	2.760	7
## 512 512	512	1 male	yes	1	3.540	21
## 513 513	513	1 female	yes	0	1.950	11
## 514 514	514	1 male	yes	1	3.590	19
## 515 515	515	1 female	no	0	3.190	3

## 516 516	516	1 female	no	0	2.760	2
## 517 517	517	1 female	yes	2	4.290	13
## 518 518	518	1 male	yes	2	3.190	5
## 519 519	519	1 male	yes	0	2.960	0
## 520 520	520	1 male	yes	1	2.760	7
## 521 521	521	1 female	yes	0	1.810	11
## 522 522	522	2 male	yes	0	3.360	4
## 523 523	523	2 male	no	0	3.090	14
## 524 524	524	2 female	no	0	3.750	8
## 525 525	525	2 female	yes	0	4.540	10
## 526 526	526	2 female	no	0	1.630	6
## 527 527	527	2 female	yes	0	3.090	2
## 528 528	528	2 female	no	0	3.690	4
## 529 529	529	2 female	no	0	2.120	2
## 530 530	530	2 female	no	0	2.260	3
## 531 531	531	2 male	yes	1	4.290	2
## 532 532	532	2 female	yes	1	1.740	4
## 533 533	533	2 male	yes	2	2.960	8
## 534 534	534	2 female	no	0	2.580	5
## 535 535	535	2 male	yes	1	4.540	10
## 536 536	536	2 female	no	0	4.620	12
## 537 537	537	2 male	yes	1	4.290	13
## 538 538	538	2 female	no	0	4.540	13
## 539 539	539	2 female	yes	0	3.590	0
## 540 540	540	2 female	no	0	4.290	5
## 541 541	541	2 male	no	0	3.690	26
## 542 542	542	2 female	no	0	3.210	0
## 543 543	543	2 female	yes	1	3.470	11
## 544 544	544	2 male	no	0	4.540	37
## 545 545	545	2 male	yes	0	1.950	4
## 546 546	546	2 male	yes	2	2.960	46
## 547 547	547	2 male	yes	1	4.540	53
## 548 548	548	2 male	yes	0	3.400	9
## 549 549	549	2 male	yes	0	2.100	4
## 550 550	550	2 male	yes	2	4.290	8
## 551 551	551	2 female	no	0	3.750	5
## 552 552	552	2 female	no	0	2.050	2
## 553 553	553	2 male	yes	1	2.500	2
## 554 554	554	2 female	yes	1	4.620	17
## 555 555	555	2 female	yes	0	1.800	10
## 556 556	556	2 female	no	0	3.090	0
## 557 557	557	2 male	no	0	4.290	10
## 558 558	558	2 male	yes	2	1.800	6
## 559 559	559	2 female	yes	0	3.590	5
## 560 560	560	2 male	yes	0	2.760	3
## 561 561	561	2 male	yes	0	4.140	16
## 562 562	562	2 male	no	0	3.590	3
## 563 563	563	2 female	no	0	4.540	12
## 564 564	564	2 female	yes	0	0.920	0
## 565 565	565	2 female	no	0	4.290	15
## 566 566	566	2 male	yes	1	2.390	4
## 567 567	567	2 male	yes	0	1.180	0
## 568 568	568	2 male	yes	2	4.540	2
## 569 569	569	2 female	yes	2	3.850	47

## 570	570	570	2	male	yes	2	2.960	21
## 571	571	571	2	female	yes	0	3.360	8
## 572	572	572	2	female	yes	0	3.190	5
## 573	573	573	2	female	yes	1	3.690	15
## 574	574	574	2	male	yes	0	1.630	8
## 575	575	575	2	male	yes	0	1.720	1
## 576	576	576	2	female	yes	0	2.580	5
## 577	577	577	2	male	yes	0	1.520	5
## 578	578	578	2	male	no	0	2.860	4
## 579	579	579	2	female	yes	2	1.220	4
## 580	580	580	2	female	no	0	2.540	4
## 581	581	581	2	female	no	0	3.360	4
## 582	582	582	2	male	yes	2	2.870	20
## 583	583	583	2	male	yes	1	3.150	7
## 584	584	584	2	female	no	0	4.620	14
## 585	585	585	2	male	yes	1	1.760	7
## 586	586	586	2	male	yes	1	1.520	3
## 587	587	587	2	male	no	0	4.290	5
## 588	588	588	2	male	yes	2	4.290	10
## 589	589	589	2	male	yes	1	2.560	5
## 590	590	590	2	male	no	0	4.540	29
## 591	591	591	2	female	yes	0	1.860	5
## 592	592	592	2	female	no	0	4.290	1
## 593	593	593	2	female	yes	0	3.920	7
## 594	594	594	2	male	no	0	2.260	2
## 595	595	595	2	male	yes	1	4.290	14
## 596	596	596	2	female	yes	1	3.690	10
## 597	597	597	2	male	yes	2	1.970	0
## 598	598	598	2	male	yes	1	3.190	10
## 599	599	599	2	female	no	0	4.540	5
## 600	600	600	2	male	no	0	4.290	25
## 601	601	601	2	male	yes	0	2.830	1
## 602	602	602	2	male	yes	3	4.340	7
## 603	603	603	2	female	no	0	3.360	3
## 604	604	604	2	female	no	0	3.410	14
## 605	605	605	2	female	no	0	2.860	3
## 606	606	606	2	male	yes	0	4.290	24
## 607	607	607	2	male	yes	1	2.760	8
## 608	608	608	2	female	yes	0	3.750	0
## 609	609	609	2	male	yes	1	4.290	12
## 610	610	610	2	male	yes	2	2.210	12
## 611	611	611	2	male	yes	0	3.540	21
## 612	612	612	2	male	yes	0	2.960	2
## 613	613	613	2	female	yes	0	2.120	2
## 614	614	614	2	male	no	0	2.390	4
## 615	615	615	2	female	no	0	3.190	5
## 616	616	616	2	female	no	0	1.970	8
## 617	617	617	2	female	yes	0	4.540	9
## 618	618	618	2	female	no	0	2.550	36
## 619	619	619	2	male	yes	0	1.760	0
## 620	620	620	2	male	yes	2	4.340	17
## 621	621	621	2	female	yes	0	2.520	16
## 622	622	622	2	male	yes	1	2.560	7
## 623	623	623	2	male	no	0	4.540	10

## 624 624	624	2 female	yes	0	1.400	0
## 625 625	625	2 male	yes	2	3.320	27
## 626 626	626	2 male	yes	0	2.510	5
## 627 627	627	2 female	yes	2	2.580	3
## 628 628	628	2 male	yes	2	3.540	16
## 629 629	629	2 male	yes	0	4.540	11
## 630 630	630	2 male	no	0	4.290	17
## 631 631	631	2 male	yes	0	4.340	5
## 632 632	632	2 female	yes	1	3.470	4
## 633 633	633	2 female	no	0	3.470	5
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## 635 635	635	2 male	yes	3	2.000	8
## 636 636	636	2 male	no	0	3.920	10
## 637 637	637	2 female	yes	0	4.620	23
## 638 638	638	2 female	no	0	3.090	6
## 639 639	639	2 female	no	0	2.320	4
## 640 640	640	2 female	no	0	4.290	21
## 641 641	641	2 female	no	0	3.360	7
## 642 642	642	2 male	yes	0	3.690	5
## 643 643	643	2 male	yes	0	4.290	17
## 644 644	644	2 female	no	0	3.590	11
## 645 645	645	2 male	yes	0	4.290	13
## 646 646	646	2 female	yes	1	3.210	7
## 647 647	647	2 female	no	0	2.260	8
## 648 648	648	2 male	yes	0	2.500	0
## 649 649	649	2 male	no	0	2.260	3
## 650 650	650	2 female	yes	0	3.750	4
## 651 651	651	2 female	no	0	4.290	4
## 652 652	652	2 male	yes	0	3.190	11
## 653 653	653	2 female	yes	1	2.000	7
## 654 654	654	2 female	yes	0	3.090	1
## 655 655	655	2 female	yes	1	3.590	2
## 656 656	656	2 female	yes	0	4.340	11
## 657 657	657	2 female	no	0	2.870	9
## 658 658	658	2 male	yes	0	2.100	2
## 659 659	659	2 female	no	0	2.830	26
## 660 660	660	2 male	yes	1	2.100	3
## 661 661	661	2 male	yes	1	1.780	1
## 662 662	662	2 male	yes	0	2.510	0
## 663 663	663	2 male	yes	1	2.520	10
## 664 664	664	2 female	yes	1	3.400	4
## 665 665	665	2 female	yes	1	3.090	3
## 666 666	666	2 male	yes	0	4.290	13
## 667 667	667	2 female	yes	0	2.960	8
## 668 668	668	2 female	yes	2	3.590	11
## 669 669	669	2 male	no	0	4.540	55
## 670 670	670	2 female	yes	0	3.590	11
## 671 671	671	2 male	yes	1	3.420	3
## 672 672	672	2 female	yes	1	4.290	4
## 673 673	673	2 female	no	0	3.190	4
## 674 674	674	2 female	yes	1	4.290	11
## 675 675	675	2 male	yes	0	4.620	3
## 676 676	676	2 male	yes	2	1.860	6
## 677 677	677	2 male	yes	0	4.620	8

## 678 678	678	2 female	yes	2	4.540	48
## 679 679	679	2 female	yes	0	3.750	8
## 680 680	680	2 male	yes	0	1.760	0
## 681 681	681	2 female	yes	0	3.410	31
## 682 682	682	2 male	yes	0	2.550	24
## 683 683	683	2 male	yes	1	1.250	2
## 684 684	684	2 female	yes	0	1.480	9
## 685 685	685	2 female	yes	0	2.830	3
## 686 686	686	2 female	yes	0	4.290	6
## 687 687	687	2 female	no	0	3.190	10
## 688 688	688	2 female	no	0	1.400	0
## 689 689	689	2 female	yes	2	3.210	2
## 690 690	690	2 male	no	0	4.620	9
## 691 691	691	2 female	yes	0	1.450	7
## 692 692	692	2 female	yes	1	3.340	4
## 693 693	693	2 female	no	0	4.540	23
## 694 694	694	2 male	yes	2	4.290	30
## 695 695	695	2 female	no	0	3.690	7
## 696 696	696	2 female	no	0	2.580	2
## 697 697	697	2 female	yes	1	4.540	7
## 698 698	698	2 male	yes	1	4.540	6
## 699 699	699	2 male	no	0	4.290	9
## 700 700	700	3 female	no	0	4.290	12
## 701 701	701	3 female	no	0	3.750	0
## 702 702	702	3 male	no	0	4.620	8
## 703 703	703	3 male	yes	2	4.540	31
## 704 704	704	3 male	yes	0	3.090	5
## 705 705	705	3 male	yes	1	1.950	14
## 706 706	706	3 female	yes	1	3.590	3
## 707 707	707	3 male	yes	1	2.610	5
## 708 708	708	3 male	no	0	2.870	12
## 709 709	709	3 male	no	0	4.290	30
## 710 710	710	3 female	yes	0	3.410	19
## 711 711	711	3 female	yes	1	2.320	5
## 712 712	712	3 female	yes	0	2.120	3
## 713 713	713	3 male	yes	0	4.540	37
## 714 714	714	3 male	yes	0	2.960	8
## 715 715	715	3 male	no	0	2.870	12
## 716 716	716	3 male	yes	0	2.320	4
## 717 717	717	3 male	yes	2	1.800	6
## 718 718	718	3 female	no	0	2.390	11
## 719 719	719	3 female	yes	1	4.620	14
## 720 720	720	3 female	no	0	4.290	10
## 721 721	721	3 male	yes	0	4.540	5
## 722 722	722	3 male	no	0	3.590	16
## 723 723	723	3 male	yes	2	4.290	0
## 724 724	724	3 male	yes	1	2.960	5
## 725 725	725	3 male	yes	2	4.290	25
## 726 726	726	3 male	yes	1	4.290	18
## 727 727	727	3 male	yes	1	2.540	6
## 728 728	728	3 male	no	0	3.920	0
## 729 729	729	3 male	no	0	2.320	8
## 730 730	730	3 female	no	0	4.620	22
## 731 731	731	3 female	yes	0	3.750	6

## 732	732	732	3	male	yes	2	1.950	3
## 733	733	733	3	male	yes	1	1.800	4
## 734	734	734	3	male	yes	0	2.760	8
## 735	735	735	3	male	no	0	3.590	7
## 736	736	736	3	male	yes	0	4.250	20
## 737	737	737	3	male	yes	2	2.830	7
## 738	738	738	3	female	no	0	2.520	4
## 739	739	739	3	female	yes	0	1.180	0
## 740	740	740	3	female	yes	0	3.360	11
## 741	741	741	3	female	yes	0	4.290	21
## 742	742	742	3	female	yes	1	4.620	49
## 743	743	743	3	male	no	0	2.830	8
## 744	744	744	3	male	yes	0	3.690	24
## 745	745	745	3	male	yes	0	2.260	12
## 746	746	746	3	female	no	0	2.050	5
## 747	747	747	3	male	yes	1	4.290	19
## 748	748	748	3	male	yes	0	1.420	3
## 749	749	749	3	female	yes	2	1.890	16
## 750	750	750	3	male	yes	0	3.690	26
## 751	751	751	3	female	yes	0	2.960	22
## 752	752	752	3	female	yes	1	1.860	1
## 753	753	753	3	female	yes	0	2.260	6
## 754	754	754	3	male	yes	0	4.290	15
## 755	755	755	3	female	yes	0	3.150	4
## 756	756	756	3	male	yes	0	2.610	0
## 757	757	757	3	female	no	0	4.540	3
## 758	758	758	3	male	yes	1	2.210	10
## 759	759	759	3	male	yes	0	1.780	0
## 760	760	760	3	male	yes	1	3.620	5
## 761	761	761	3	male	yes	0	3.920	0
## 762	762	762	3	female	yes	0	4.620	10
## 763	763	763	3	male	yes	0	2.610	5
## 764	764	764	3	female	yes	1	3.360	3
## 765	765	765	3	female	yes	0	3.690	12
## 766	766	766	3	male	yes	0	3.470	14
## 767	767	767	3	male	yes	0	1.250	4
## 768	768	768	3	male	yes	0	4.620	18
## 769	769	769	3	male	yes	1	3.590	14
## 770	770	770	3	female	no	0	3.360	2
## 771	771	771	3	male	yes	0	4.290	38
## 772	772	772	3	male	no	0	3.540	12
## 773	773	773	3	male	yes	2	2.580	2
## 774	774	774	3	male	no	0	1.520	3
## 775	775	775	3	male	yes	0	3.470	8
## 776	776	776	3	female	yes	0	4.620	14
## 777	777	777	3	male	no	0	3.540	25
## 778	778	778	3	male	yes	2	2.100	4
## 779	779	779	3	male	yes	2	1.380	8
## 780	780	780	3	male	yes	1	3.090	5
## 781	781	781	3	male	yes	3	2.860	3
## 782	782	782	3	female	no	0	4.290	5
## 783	783	783	3	female	yes	1	1.220	3
## 784	784	784	4	male	yes	0	2.830	5
## 785	785	785	4	female	yes	0	4.540	16

## 786	786	786	4	male	yes	0	4.290	22
## 787	787	787	4	male	no	0	4.290	7
## 788	788	788	4	male	yes	0	3.540	9
## 789	789	789	4	male	no	0	2.520	6
## 790	790	790	4	female	no	0	1.400	3
## 791	791	791	4	female	yes	0	4.340	6
## 792	792	792	4	female	yes	1	2.510	2
## 793	793	793	4	male	yes	0	4.290	2
## 794	794	794	4	male	yes	1	2.960	0
## 795	795	795	4	male	no	0	3.850	47
## 796	796	796	4	male	no	0	4.540	5
## 797	797	797	4	female	yes	0	3.400	5
## 798	798	798	4	male	no	0	3.410	21
## 799	799	799	4	male	yes	1	2.960	57
## 800	800	800	4	female	yes	0	3.540	5
## 801	801	801	4	male	yes	2	1.720	2
## 802	802	802	4	male	yes	2	2.860	15
## 803	803	803	4	male	yes	2	4.540	66
## 804	804	804	4	male	yes	1	1.760	11
## 805	805	805	4	male	yes	2	1.860	15
## 806	806	806	4	male	yes	0	3.470	4
## 807	807	807	4	male	no	0	3.410	7
## 808	808	808	4	male	yes	0	1.810	10
## 809	809	809	4	male	yes	2	2.050	13
## 810	810	810	4	male	no	0	4.620	18
## 811	811	811	4	female	yes	0	2.260	3
## 812	812	812	4	male	yes	1	1.860	47
## 813	813	813	4	female	yes	1	4.290	4
## 814	814	814	4	male	yes	2	3.540	2
## 815	815	815	4	male	yes	0	4.290	30
## 816	816	816	4	male	yes	0	2.540	11
## 817	817	817	4	female	yes	0	4.250	13
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## 819	819	819	4	female	yes	1	3.540	12
## 820	820	820	4	female	yes	0	3.190	8
## 821	821	821	4	male	yes	2	4.540	21
## 822	822	822	4	female	no	0	2.860	39
## 823	823	823	4	female	yes	0	2.580	14
## 824	824	824	4	female	yes	0	1.280	4
## 825	825	825	4	female	yes	0	3.210	14
## 826	826	826	4	female	no	0	2.870	6
## 827	827	827	4	female	no	0	3.340	11
## 828	828	828	4	female	no	0	3.150	8
## 829	829	829	4	female	no	0	2.320	8
## 830	830	830	4	male	no	0	4.290	19
## 831	831	831	4	male	no	0	3.690	7
## 832	832	832	4	male	yes	1	2.550	21
## 833	833	833	4	female	no	0	4.620	3
## 834	834	834	4	female	yes	0	2.360	5
## 835	835	835	4	male	yes	1	4.250	29
## 836	836	836	4	male	yes	1	4.290	5
## 837	837	837	4	female	yes	0	3.190	7
## 838	838	838	4	female	no	0	3.190	3
## 839	839	839	4	female	no	0	2.560	23

## 840 840	840	4	male	yes	0	1.760	7
## 841 841	841	4	male	yes	1	2.580	25
## 842 842	842	4	female	yes	0	3.410	4
## 843 843	843	4	female	no	0	3.590	9
## 844 844	844	4	female	yes	0	1.780	4
## 845 845	845	4	female	no	0	3.750	3
## 846 846	846	4	male	yes	2	3.690	16
## 847 847	847	4	male	yes	0	3.620	5
## 848 848	848	4	male	yes	0	1.505	4
## 849 849	849	4	male	yes	2	2.580	6
## 850 850	850	4	male	no	0	2.870	15
## 851 851	851	5	female	yes	0	2.260	16
## 852 852	852	5	female	no	0	3.750	13
## 853 853	853	5	male	yes	2	3.850	15
## 854 854	854	5	male	yes	1	3.150	5
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## 857 857	857	5	male	yes	0	4.250	12
## 858 858	858	5	male	no	0	3.360	11
## 859 859	859	5	female	no	0	3.590	14
## 860 860	860	5	male	yes	1	2.580	25
## 861 861	861	5	male	yes	1	3.590	21
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## 863 863	863	5	male	yes	0	4.540	13
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## 865 865	865	5	female	no	0	2.870	12
## 866 866	866	5	female	yes	0	4.540	15
## 867 867	867	5	female	yes	1	3.850	1
## 868 868	868	5	male	yes	0	2.500	4
## 869 869	869	5	male	yes	1	3.470	0
## 870 870	870	5	female	yes	0	2.860	24
## 871 871	871	5	female	yes	0	4.620	0
## 872 872	872	5	male	yes	1	4.540	53
## 873 873	873	5	male	yes	0	1.250	2
## 874 874	874	5	female	yes	0	3.210	19
## 875 875	875	5	male	yes	1	1.760	11
## 876 876	876	5	female	no	0	2.580	6
## 877 877	877	5	female	no	0	3.620	3
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## 879 879	879	6	female	yes	0	2.100	36
## 880 880	880	6	female	yes	2	1.860	38
## 881 881	881	6	male	yes	0	4.340	9
## 882 882	882	6	female	yes	0	4.290	24
## 883 883	883	6	male	yes	2	2.510	11
## 884 884	884	6	male	yes	1	2.960	13
## 885 885	885	6	male	no	0	4.290	18
## 886 886	886	6	male	no	0	3.400	14
## 887 887	887	6	female	no	0	4.540	12
## 888 888	888	6	male	yes	1	3.850	16
## 889 889	889	6	female	no	0	3.150	9
## 890 890	890	6	female	no	0	4.540	15
## 891 891	891	6	male	no	0	3.470	6
## 892 892	892	6	female	yes	0	4.290	1
## 893 893	893	6	male	no	0	1.970	4

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##	896	896	896	7	male	no	0	2.540	6
##	897	897	897	7	male	no	0	3.410	20
##	898	898	898	7	male	yes	1	1.970	0
##	899	899	899	7	female	no	0	3.150	9
##	900	900	900	7	male	no	0	4.620	15
##	901	901	901	7	male	no	0	4.540	42
##	902	902	902	7	male	yes	0	3.690	9
##	903	903	903	7	male	no	0	4.340	19
##	904	904	904	7	male	no	0	4.290	19
##	905	905	905	7	male	yes	1	3.590	27
##	906	906	906	7	male	no	0	3.690	19
##	907	907	907	8	male	yes	0	2.510	11
##	908	908	908	9	male	yes	1	2.960	23
##	909	909	909	9	male	yes	1	1.860	47
##	910	910	910	10	female	yes	0	3.590	18
##	911	911	911	11	male	yes	2	2.860	7
##	912	912	912	12	male	yes	1	4.290	35
##	913	913	913	12	male	yes	1	1.860	5
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## 35	Inf
## 36	Inf
## 37	Inf
## 38	0.47666666
## 39	0.61000001
## 40	0.75000000
## 41	0.47666666
## 42	0.95333330
## 43	0.78400002
## 44	1.11999997
## 45	0.34999998
## 46	Inf
## 47	2.50000000
## 48	0.13440000
## 49	0.32428571
## 50	0.49000001
## 51	0.90799999
## 52	Inf
## 53	0.24666667
## 54	0.53625000
## 55	1.13000000
## 56	0.19272726
## 57	1.60500002
## 58	3.15000010
## 59	3.92000008
## 60	Inf
## 61	0.47666665
## 62	Inf
## 63	0.93750000
## 64	1.76999998
## 65	2.53999996
## 66	0.92000000
## 67	0.45400000
## 68	0.27999999
## 69	Inf
## 70	Inf
## 71	1.05999994
## 72	Inf
## 73	1.78999996
## 74	2.14499998
## 75	0.31999999
## 76	0.51599998
## 77	Inf
## 78	2.21000004
## 79	0.45200000
## 80	0.64200001
## 81	1.04999995
## 82	3.53999996
## 83	0.18888889
## 84	0.36833334
## 85	0.11631579

## 86	0.92000002
## 87	0.12257143
## 88	0.52500002
## 89	0.22578947
## 90	0.31375000
## 91	4.28999996
## 92	Inf
## 93	0.47333332
## 94	0.11631579
## 95	0.82799997
## 96	0.21714285
## 97	0.57749999
## 98	0.51714284
## 99	0.93750000
## 100	0.53625000
## 101	0.75000000
## 102	Inf
## 103	0.20000000
## 104	0.79750001
## 105	1.80999994
## 106	1.57500005
## 107	0.53571429
## 108	0.34166666
## 109	0.73666668
## 110	1.67999995
## 111	0.31545455
## 112	Inf
## 113	1.67999995
## 114	0.50799999
## 115	0.53750002
## 116	1.51333332
## 117	0.41999999
## 118	Inf
## 119	0.19272726
## 120	1.73500001
## 121	3.47000003
## 122	0.37333332
## 123	0.21199999
## 124	2.09999990
## 125	4.28999996
## 126	0.21999999
## 127	0.47666666
## 128	1.60500002
## 129	Inf
## 130	0.36199999
## 131	1.25999999
## 132	0.14608695
## 133	1.13499999
## 134	1.07249999
## 135	0.23555554
## 136	0.15400000
## 137	0.25642857
## 138	0.89749998
## 139	2.85999990

## 140	0.50166667
## 141	Inf
## 142	Inf
## 143	Inf
## 144	1.11999997
## 145	1.00000000
## 146	0.68200002
## 147	Inf
## 148	1.00000000
## 149	1.67999995
## 150	0.51285713
## 151	1.07000005
## 152	0.29916666
## 153	0.23900001
## 154	0.41272727
## 155	1.48000002
## 156	0.44200001
## 157	0.73800001
## 158	1.77999997
## 159	0.25999999
## 160	0.35749999
## 161	0.85999997
## 162	3.75000000
## 163	0.11090909
## 164	0.23333332
## 165	0.19944444
## 166	0.70799999
## 167	0.17874999
## 168	0.31000000
## 169	Inf
## 170	0.52714287
## 171	1.84500003
## 172	4.28999996
## 173	2.51999998
## 174	0.17600000
## 175	1.15999997
## 176	1.84500003
## 177	0.26785714
## 178	0.85799999
## 179	0.75666666
## 180	Inf
## 181	Inf
## 182	0.11631579
## 183	0.56750000
## 184	0.17499999
## 185	0.45200000
## 186	0.30799999
## 187	0.69000000
## 188	0.35750000
## 189	Inf
## 190	0.91500002
## 191	Inf
## 192	0.71499999
## 193	Inf

## 194	2.14000010
## 195	0.26153847
## 196	0.19133333
## 197	Inf
## 198	Inf
## 199	0.23062500
## 200	Inf
## 201	0.34499999
## 202	0.47800002
## 203	1.96000004
## 204	0.74000001
## 205	1.05999994
## 206	2.11999989
## 207	0.86999997
## 208	Inf
## 209	0.40857141
## 210	Inf
## 211	3.33999991
## 212	0.45249999
## 213	0.44874999
## 214	4.53999996
## 215	3.58999991
## 216	0.47666666
## 217	0.38000000
## 218	0.71499999
## 219	0.92399998
## 220	0.33000000
## 221	0.83666666
## 222	0.95333330
## 223	0.37000000
## 224	1.23000002
## 225	1.73500001
## 226	0.28600000
## 227	Inf
## 228	3.92000008
## 229	0.33333333
## 230	0.57999998
## 231	0.22222222
## 232	0.06222222
## 233	Inf
## 234	1.10000002
## 235	0.21199999
## 236	0.10000000
## 237	1.11999997
## 238	0.17875000
## 239	Inf
## 240	0.85799999
## 241	Inf
## 242	2.82999992
## 243	0.42999999
## 244	0.45000001
## 245	2.14499998
## 246	Inf
## 247	0.71799998

## 248	0.15933334
## 249	0.62500000
## 250	2.75999999
## 251	0.26153847
## 252	0.61285714
## 253	0.92250001
## 254	0.21999999
## 255	1.42999999
## 256	2.06999993
## 257	1.19500005
## 258	0.25999999
## 259	0.42285715
## 260	0.44874999
## 261	0.36199999
## 262	2.14499998
## 263	Inf
## 264	Inf
## 265	2.14499998
## 266	2.14499998
## 267	Inf
## 268	0.12257143
## 269	0.46399999
## 270	0.33599999
## 271	Inf
## 272	1.23000002
## 273	0.48714287
## 274	Inf
## 275	0.46125001
## 276	0.63499999
## 277	0.44000000
## 278	0.33000000
## 279	Inf
## 280	0.25749999
## 281	0.55999998
## 282	Inf
## 283	0.53571429
## 284	0.35666668
## 285	0.19500000
## 286	1.00000000
## 287	0.50000000
## 288	0.12500000
## 289	0.43499998
## 290	0.35416667
## 291	0.16857142
## 292	0.39000000
## 293	1.04999995
## 294	0.57399998
## 295	1.15666668
## 296	1.77999997
## 297	0.27599999
## 298	Inf
## 299	1.42999999
## 300	0.18099999
## 301	0.15466666

## 302	0.37285713
## 303	0.04941176
## 304	1.06333335
## 305	0.71799998
## 306	Inf
## 307	0.56666668
## 308	0.56500000
## 309	0.28333334
## 310	Inf
## 311	Inf
## 312	0.28600000
## 313	0.39000000
## 314	0.13833333
## 315	0.12400000
## 316	0.47833331
## 317	0.07454545
## 318	0.32142857
## 319	0.26249999
## 320	0.71499999
## 321	0.58333333
## 322	0.37000000
## 323	0.56250000
## 324	0.21250000
## 325	0.11636363
## 326	0.29000001
## 327	1.96000004
## 328	0.02311688
## 329	0.24285715
## 330	0.43500000
## 331	0.71499999
## 332	0.33333333
## 333	0.15944444
## 334	0.71499999
## 335	1.59500003
## 336	1.22000003
## 337	0.20823529
## 338	4.28999996
## 339	1.53999996
## 340	0.33333333
## 341	1.19666664
## 342	0.53166668
## 343	1.70000005
## 344	0.63999999
## 345	0.43500000
## 346	2.25999999
## 347	0.71799998
## 348	0.28874999
## 349	0.69999999
## 350	0.23000000
## 351	0.79666670
## 352	2.25999999
## 353	0.40857141
## 354	0.34500000
## 355	0.20375000

## 356	0.35750000
## 357	0.46666666
## 358	Inf
## 359	0.43499998
## 360	1.79999995
## 361	0.20428571
## 362	0.20500000
## 363	0.28874999
## 364	0.21500001
## 365	Inf
## 366	0.40000000
## 367	Inf
## 368	0.87500000
## 369	1.92499995
## 370	1.06250000
## 371	1.15666668
## 372	0.49000001
## 373	0.83666666
## 374	0.11666666
## 375	0.18181818
## 376	0.20000000
## 377	2.14499998
## 378	0.33599999
## 379	4.61999989
## 380	0.16000000
## 381	0.25666666
## 382	0.35899999
## 383	0.71499999
## 384	0.44874999
## 385	0.71499999
## 386	1.06333335
## 387	3.58999991
## 388	0.15578948
## 389	1.28999996
## 390	0.49333334
## 391	0.34923077
## 392	0.45400000
## 393	0.62500000
## 394	0.20999999
## 395	0.57999998
## 396	0.35444445
## 397	1.10500002
## 398	0.25000000
## 399	0.82799997
## 400	1.15499997
## 401	0.12270270
## 402	0.35000001
## 403	0.39000000
## 404	0.65000002
## 405	0.22222222
## 406	2.26999998
## 407	1.28999996
## 408	0.13275862
## 409	0.34100001

## 410	0.25111111
## 411	2.12500000
## 412	0.59833332
## 413	0.23555554
## 414	0.42285715
## 415	Inf
## 416	0.56500000
## 417	0.50444444
## 418	0.40857141
## 419	2.26999998
## 420	0.29916666
## 421	0.25666666
## 422	0.55666665
## 423	1.75000000
## 424	0.56599998
## 425	0.28636365
## 426	0.39888888
## 427	0.15625000
## 428	0.12058823
## 429	Inf
## 430	Inf
## 431	0.34142859
## 432	1.51333332
## 433	0.57999998
## 434	0.17160000
## 435	0.73800001
## 436	0.47666666
## 437	1.96000004
## 438	0.55200000
## 439	0.46000000
## 440	0.90499997
## 441	0.30642857
## 442	0.23916666
## 443	0.26555557
## 444	0.30642857
## 445	0.44499999
## 446	0.26249999
## 447	0.75000000
## 448	0.45200000
## 449	0.37200000
## 450	0.98000002
## 451	0.43400002
## 452	0.83999997
## 453	2.50999999
## 454	0.17857143
## 455	0.10088889
## 456	0.20375000
## 457	0.46199999
## 458	0.75999999
## 459	0.23181818
## 460	1.17999995
## 461	0.34333332
## 462	0.92399998
## 463	2.31999993

## 464	0.68333332
## 465	4.28999996
## 466	1.70000005
## 467	0.42900000
## 468	1.79499996
## 469	0.67199998
## 470	0.15769230
## 471	0.11218750
## 472	0.21388888
## 473	Inf
## 474	Inf
## 475	1.15666668
## 476	0.65249997
## 477	0.69000000
## 478	0.47666666
## 479	0.46666666
## 480	0.25666666
## 481	0.16823529
## 482	0.16823529
## 483	0.07333333
## 484	0.28571429
## 485	0.22000000
## 486	Inf
## 487	0.25235294
## 488	0.16000000
## 489	0.25285714
## 490	3.69000006
## 491	0.57399998
## 492	Inf
## 493	1.08500004
## 494	0.32181818
## 495	0.42900000
## 496	Inf
## 497	0.48571430
## 498	0.36199999
## 499	0.17722223
## 500	0.46399999
## 501	0.23894737
## 502	2.14499998
## 503	1.42999995
## 504	1.42999995
## 505	Inf
## 506	Inf
## 507	0.14000000
## 508	0.09882353
## 509	0.19133333
## 510	3.47000003
## 511	0.39428571
## 512	0.16857143
## 513	0.17727273
## 514	0.18894736
## 515	1.06333335
## 516	1.38000000
## 517	0.33000000

## 518	0.63800001
## 519	Inf
## 520	0.39428571
## 521	0.16454545
## 522	0.83999997
## 523	0.22071428
## 524	0.46875000
## 525	0.45400000
## 526	0.27166667
## 527	1.54499996
## 528	0.92250001
## 529	1.05999994
## 530	0.75333333
## 531	2.14499998
## 532	0.43500000
## 533	0.37000000
## 534	0.51599998
## 535	0.45400000
## 536	0.38499999
## 537	0.33000000
## 538	0.34923077
## 539	Inf
## 540	0.85799999
## 541	0.14192308
## 542	Inf
## 543	0.31545455
## 544	0.12270270
## 545	0.48750001
## 546	0.06434783
## 547	0.08566038
## 548	0.37777779
## 549	0.52499998
## 550	0.53625000
## 551	0.75000000
## 552	1.02499998
## 553	1.25000000
## 554	0.27176470
## 555	0.18000000
## 556	Inf
## 557	0.42900000
## 558	0.29999999
## 559	0.71799998
## 560	0.92000000
## 561	0.25874999
## 562	1.19666664
## 563	0.37833333
## 564	Inf
## 565	0.28600000
## 566	0.59750003
## 567	Inf
## 568	2.26999998
## 569	0.08191489
## 570	0.14095238
## 571	0.41999999

## 572	0.63800001
## 573	0.24600000
## 574	0.20375000
## 575	1.72000003
## 576	0.51599998
## 577	0.30400000
## 578	0.71499997
## 579	0.30500001
## 580	0.63499999
## 581	0.83999997
## 582	0.14349999
## 583	0.45000001
## 584	0.32999999
## 585	0.25142857
## 586	0.50666666
## 587	0.85799999
## 588	0.42900000
## 589	0.51199999
## 590	0.15655172
## 591	0.37200000
## 592	4.28999996
## 593	0.56000001
## 594	1.13000000
## 595	0.30642857
## 596	0.36900001
## 597	Inf
## 598	0.31900001
## 599	0.90799999
## 600	0.17160000
## 601	2.82999992
## 602	0.62000002
## 603	1.11999997
## 604	0.24357143
## 605	0.95333330
## 606	0.17875000
## 607	0.34500000
## 608	Inf
## 609	0.35750000
## 610	0.18416667
## 611	0.16857143
## 612	1.48000002
## 613	1.05999994
## 614	0.59750003
## 615	0.63800001
## 616	0.24625000
## 617	0.50444444
## 618	0.07083333
## 619	Inf
## 620	0.25529413
## 621	0.15750000
## 622	0.36571428
## 623	0.45400000
## 624	Inf
## 625	0.12296296

## 626	0.50200000
## 627	0.85999997
## 628	0.22125000
## 629	0.41272727
## 630	0.25235294
## 631	0.86800003
## 632	0.86750001
## 633	0.69400001
## 634	0.50000000
## 635	0.25000000
## 636	0.39200001
## 637	0.20086956
## 638	0.51499999
## 639	0.57999998
## 640	0.20428571
## 641	0.47999999
## 642	0.73800001
## 643	0.25235294
## 644	0.32636363
## 645	0.33000000
## 646	0.45857143
## 647	0.28250000
## 648	Inf
## 649	0.75333333
## 650	0.93750000
## 651	1.07249999
## 652	0.29000001
## 653	0.28571429
## 654	3.08999991
## 655	1.79499996
## 656	0.39454547
## 657	0.31888888
## 658	1.04999995
## 659	0.10884615
## 660	0.69999997
## 661	1.77999997
## 662	Inf
## 663	0.25200000
## 664	0.85000002
## 665	1.02999997
## 666	0.33000000
## 667	0.37000000
## 668	0.32636363
## 669	0.08254545
## 670	0.32636363
## 671	1.14000003
## 672	1.07249999
## 673	0.79750001
## 674	0.39000000
## 675	1.53999996
## 676	0.31000000
## 677	0.57749999
## 678	0.09458333
## 679	0.46875000

## 680	Inf
## 681	0.11000000
## 682	0.10625000
## 683	0.62500000
## 684	0.16444445
## 685	0.94333331
## 686	0.71499999
## 687	0.31900001
## 688	Inf
## 689	1.60500002
## 690	0.51333332
## 691	0.20714286
## 692	0.83499998
## 693	0.19739130
## 694	0.14300000
## 695	0.52714287
## 696	1.28999996
## 697	0.64857142
## 698	0.75666666
## 699	0.47666666
## 700	0.35750000
## 701	Inf
## 702	0.57749999
## 703	0.14645161
## 704	0.61799998
## 705	0.13928572
## 706	1.19666664
## 707	0.52199998
## 708	0.23916666
## 709	0.14300000
## 710	0.17947369
## 711	0.46399999
## 712	0.70666663
## 713	0.12270270
## 714	0.37000000
## 715	0.23916666
## 716	0.57999998
## 717	0.29999999
## 718	0.21727274
## 719	0.32999999
## 720	0.42900000
## 721	0.90799999
## 722	0.22437499
## 723	Inf
## 724	0.59200001
## 725	0.17160000
## 726	0.23833333
## 727	0.42333333
## 728	Inf
## 729	0.28999999
## 730	0.20999999
## 731	0.62500000
## 732	0.65000002
## 733	0.44999999

## 734	0.34500000
## 735	0.51285713
## 736	0.21250000
## 737	0.40428570
## 738	0.63000000
## 739	Inf
## 740	0.30545454
## 741	0.20428571
## 742	0.09428571
## 743	0.35374999
## 744	0.15375000
## 745	0.18833333
## 746	0.40999999
## 747	0.22578947
## 748	0.47333332
## 749	0.11812500
## 750	0.14192308
## 751	0.13454546
## 752	1.86000001
## 753	0.37666667
## 754	0.28600000
## 755	0.78750002
## 756	Inf
## 757	1.51333332
## 758	0.22100000
## 759	Inf
## 760	0.72399998
## 761	Inf
## 762	0.46199999
## 763	0.52199998
## 764	1.11999997
## 765	0.30750000
## 766	0.24785714
## 767	0.31250000
## 768	0.25666666
## 769	0.25642857
## 770	1.67999995
## 771	0.11289474
## 772	0.29500000
## 773	1.28999996
## 774	0.50666666
## 775	0.43375000
## 776	0.32999999
## 777	0.14160000
## 778	0.52499998
## 779	0.17250000
## 780	0.61799998
## 781	0.95333330
## 782	0.85799999
## 783	0.40666668
## 784	0.56599998
## 785	0.28375000
## 786	0.19500000
## 787	0.61285714

## 788	0.39333333
## 789	0.42000000
## 790	0.46666666
## 791	0.72333336
## 792	1.25500000
## 793	2.14499998
## 794	Inf
## 795	0.08191489
## 796	0.90799999
## 797	0.68000002
## 798	0.16238096
## 799	0.05192983
## 800	0.70799999
## 801	0.86000001
## 802	0.19066666
## 803	0.06878788
## 804	0.16000000
## 805	0.12400000
## 806	0.86750001
## 807	0.48714287
## 808	0.18099999
## 809	0.15769230
## 810	0.25666666
## 811	0.75333333
## 812	0.03957447
## 813	1.07249999
## 814	1.76999998
## 815	0.14300000
## 816	0.23090909
## 817	0.32692308
## 818	0.25000000
## 819	0.29500000
## 820	0.39875001
## 821	0.21619047
## 822	0.07333333
## 823	0.18428571
## 824	0.31999999
## 825	0.22928572
## 826	0.47833331
## 827	0.30363636
## 828	0.39375001
## 829	0.28999999
## 830	0.22578947
## 831	0.52714287
## 832	0.12142857
## 833	1.53999996
## 834	0.47199998
## 835	0.14655172
## 836	0.85799999
## 837	0.45571429
## 838	1.06333335
## 839	0.11130435
## 840	0.25142857
## 841	0.10320000

## 842	0.85250002
## 843	0.39888888
## 844	0.44499999
## 845	1.25000000
## 846	0.23062500
## 847	0.72399998
## 848	0.37625000
## 849	0.42999999
## 850	0.19133333
## 851	0.14125000
## 852	0.28846154
## 853	0.25666666
## 854	0.63000002
## 855	0.11666667
## 856	0.72333336
## 857	0.35416667
## 858	0.30545454
## 859	0.25642857
## 860	0.10320000
## 861	0.17095238
## 862	0.74000001
## 863	0.34923077
## 864	0.14300000
## 865	0.23916666
## 866	0.30266666
## 867	3.84999990
## 868	0.62500000
## 869	Inf
## 870	0.11916666
## 871	Inf
## 872	0.08566038
## 873	0.62500000
## 874	0.16894737
## 875	0.16000000
## 876	0.42999999
## 877	1.20666663
## 878	0.57749999
## 879	0.05833333
## 880	0.04894737
## 881	0.48222224
## 882	0.17875000
## 883	0.22818182
## 884	0.22769231
## 885	0.23833333
## 886	0.24285715
## 887	0.37833333
## 888	0.24062499
## 889	0.35000001
## 890	0.30266666
## 891	0.57833334
## 892	4.28999996
## 893	0.49250001
## 894	0.55333332
## 895	3.58999991

```
## 896      0.42333333
## 897      0.17050000
## 898      Inf
## 899      0.35000001
## 900      0.30799999
## 901      0.10809524
## 902      0.41000001
## 903      0.22842106
## 904      0.22578947
## 905      0.13296296
## 906      0.19421053
## 907      0.22818182
## 908      0.12869565
## 909      0.03957447
## 910      0.19944444
## 911      0.40857141
## 912      0.12257143
## 913      0.37200000
## 914      0.08285714
## 915      0.04428571
```

```
shipdata<-read_csv(file="C:/Users/ushad/Downloads/ShipAccidents.csv")
```

```
## Rows: 40 Columns: 6
## -- Column specification -----
## Delimiter: ","
## chr (3): type, construction, operation
## dbl (3): rownames, service, incidents
##
## 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.
```

```
shipdata
```

```
## # A tibble: 40 x 6
##   rownames type construction operation service incidents
##   <dbl> <chr> <chr> <chr> <dbl> <dbl>
## 1      1 A 1960-64 1960-74 127 0
## 2      2 A 1960-64 1975-79 63 0
## 3      3 A 1965-69 1960-74 1095 3
## 4      4 A 1965-69 1975-79 1095 4
## 5      5 A 1970-74 1960-74 1512 6
## 6      6 A 1970-74 1975-79 3353 18
## 7      7 A 1975-79 1960-74 0 0
## 8      8 A 1975-79 1975-79 2244 11
## 9      9 B 1960-64 1960-74 44882 39
## 10     10 B 1960-64 1975-79 17176 29
## # i 30 more rows
```

```
shipdata %>% select(-incidents) %>% arrange(desc(type)) %>% arrange(construction)
```

```
## # A tibble: 40 x 5
```



```
##      rownames type  construction operation service
##      <dbl> <chr> <chr>          <chr>      <dbl>
## 1      34 E      1960-64      1975-79        0
## 2      25 D      1960-64      1960-74       251
## 3      26 D      1960-64      1975-79       105
## 4      17 C      1960-64      1960-74      1179
## 5      18 C      1960-64      1975-79       552
## 6       9 B      1960-64      1960-74     44882
## 7      10 B      1960-64      1975-79     17176
## 8       1 A      1960-64      1960-74       127
## 9       2 A      1960-64      1975-79        63
## 10     35 E      1965-69      1960-74       789
## # i 30 more rows
```

```
#it first arranged wrt to construction, then type
modifiedshipdata <- shipdata %>% select(-incidents) %>% arrange(construction) %>% arrange(desc(type))
modifiedshipdata
```

```
## # A tibble: 40 x 5
##      rownames type  construction operation service
##      <dbl> <chr> <chr>          <chr>      <dbl>
## 1      34 E      1960-64      1975-79        0
## 2      35 E      1965-69      1960-74       789
## 3      36 E      1965-69      1975-79       437
## 4      37 E      1970-74      1960-74      1157
## 5      38 E      1970-74      1975-79      2161
## 6      33 E      1975-79      1975-79        45
## 7      39 E      1975-79      1960-74        0
## 8      40 E      1975-79      1975-79       542
## 9      25 D      1960-64      1960-74       251
## 10     26 D      1960-64      1975-79       105
## # i 30 more rows
```

```
#another way of adding columns
shipdata %>% add_column(newcol = shipdata$service - shipdata$incidents, newcol2='0')
```

```
## # A tibble: 40 x 8
##      rownames type  construction operation service incidents newcol newcol2
##      <dbl> <chr> <chr>          <chr>      <dbl>      <dbl> <chr>
## 1       1 A      1960-64      1960-74       127         0     127 0
## 2       2 A      1960-64      1975-79        63         0      63 0
## 3       3 A      1965-69      1960-74      1095         3    1092 0
## 4       4 A      1965-69      1975-79      1095         4    1091 0
## 5       5 A      1970-74      1960-74      1512         6    1506 0
## 6       6 A      1970-74      1975-79     3353        18    3335 0
## 7       7 A      1975-79      1960-74         0         0         0 0
## 8       8 A      1975-79      1975-79     2244        11    2233 0
## 9       9 B      1960-64      1960-74     44882        39   44843 0
## 10     10 B      1960-64      1975-79     17176        29   17147 0
## # i 30 more rows
```

```
#i think mutate has some functions like cummean() #associated with itself which add_column does not, wh
```

```
#tinytex::install_tinytex()
```