

Titanic data exploration markdown

‘Vu Nguyen’

‘Vy Nguyen’

May 22, 2024

## Contents

<b>1</b>	<b>YODO INSTRUCTIONS</b>	<b>2</b>
<b>2</b>	<b>Libraries</b>	<b>2</b>
<b>3</b>	<b>Import a csv file</b>	<b>3</b>
<b>4</b>	<b>Examine the overall data frame</b>	<b>3</b>
4.1	You can retrieve and save the number of rows and number of columns of a data frame . . .	4
4.2	Show the head and tail rows of a data frame . . . . .	4
4.3	summary() . . . . .	6
<b>5</b>	<b>Data transformation</b>	<b>7</b>
<b>6</b>	<b>Understanding numeric variables</b>	<b>95</b>
6.1	Quantile function . . . . .	96
6.2	Boxplots . . . . .	97
6.3	Rounding . . . . .	103
6.4	Understand relationship of multiple variables . . . . .	104
6.5	pairs.panels . . . . .	105
<b>7</b>	<b>Exploring factor variables</b>	<b>106</b>
7.1	nlevels(), is.factor() . . . . .	106
7.2	Barplot . . . . .	107
<b>8</b>	<b>Exploring numeric variables by factors</b>	<b>112</b>
8.1	Boxplot . . . . .	112
8.2	Scatter plot of numeric values and factor values . . . . .	115

```
# header-includes:
# - \usepackage{titling}
# - \setlength{\droptitle}{5em}
```

# 1 YOU DO INSTRUCTIONS

The goal of this tutorial is to have you complete some code without needing to provide all the code required. Each code block may have some text for you to simply uncomment, replace with the correct variable, dataframe, function etc.

for example in this case you will simply uncomment change the placeholder text to the correct dataframe name and then run. `DF_NAME_HERE %>% str()`

as you work your way through the document pay attention to the functions being used and the way the code is written. This will help you complete the assignment.

# 2 Libraries

```
library(tinytex)
```

```
## Warning: package 'tinytex' was built under R version 4.4.1
```

```
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(psych)
```

```
##
## Attaching package: 'psych'
##
## The following objects are masked from 'package:ggplot2':
##
##   %+%, alpha
```

```
library(RWeka)
```

The sinking of the RMS Titanic is one of the most infamous shipwrecks in history. On April 15, 1912, during her maiden voyage, the Titanic sank after colliding with an iceberg, killing 1502 out of 2224 passengers and crew. This sensational tragedy shocked the international community and led to better safety regulations for ships. One of the reasons that the shipwreck led to such loss of life was that there were not enough lifeboats for the passengers and crew. Although there was some element of luck involved in surviving the sinking, some groups of people such as women, children, and the upper-class were more likely to survive than others.

#### VARIABLE DESCRIPTIONS:

PassengerID Unique passenger identifier Survived Survival (0 = No; 1 = Yes) Pclass Passenger Class (1 = 1st; 2 = 2nd; 3 = 3rd) (Pclass is a proxy for socio-economic status (SES) 1st ~ Upper; 2nd ~ Middle; 3rd ~ Lower) Name Name Sex Sex Age Age (Age is in Years; Fractional if Age less than One (1) If the Age is Estimated, it is in the form xx.5) Sibsp Number of Siblings/Spouses Aboard Parch Number of Parents/Children Aboard Ticket Ticket Number Fare Passenger Fare Cabin Cabin Embarked Port of Embarkation (C = Cherbourg; Q = Queenstown; S = Southampton)

---

## 3 Import a csv file

no changes needed

```
cloud_wd <- getwd()
setwd(cloud_wd)

titanic <- read.csv(file = "titanic.train.csv", stringsAsFactors = FALSE)
```

## 4 Examine the overall data frame

str() shows the number of observations, and the number, names, types and some values of columns

simply uncomment this line and replace the DF\_NAME\_HERE with the actual name of the dataframe variable (\*\* hint this is titanic)

```
titanic %>% str()
```

```
## 'data.frame':      891 obs. of  12 variables:
## $ PassengerId: int   1  2  3  4  5  6  7  8  9 10 ...
## $ Survived   : int   0  1  1  1  0  0  0  0  1  1 ...
## $ Pclass     : int   3  1  3  1  3  3  1  3  3  2 ...
## $ Name       : chr   "Braund, Mr. Owen Harris" "Cumings, Mrs. John Bradley (Florence Briggs Thayer)"
## $ Sex        : chr   "male" "female" "female" "female" ...
## $ Age        : num   22  38  26  35  35 NA  54  2  27  14 ...
## $ SibSp      : int   1  1  0  1  0  0  0  3  0  1 ...
## $ Parch      : int   0  0  0  0  0  0  0  1  2  0 ...
## $ Ticket     : chr   "A/5 21171" "PC 17599" "STON/O2. 3101282" "113803" ...
## $ Fare       : num   7.25 71.28 7.92 53.1 8.05 ...
## $ Cabin      : chr   "" "C85" "" "C123" ...
## $ Embarked   : chr   "S" "C" "S" "S" ...
```

## 4.1 You can retrieve and save the number of rows and number of columns of a data frame

uncomment the two lines of code. replace CALLNROWHERE with the nrow() function.

```
# create local variables for row and column numbers

row <- nrow(titanic)
row
```

```
## [1] 891
```

```
#should be 891
```

uncomment the two lines of code. replace CALLNCOLHERE with the ncol() function.

```
col <- ncol(titanic)
col
```

```
## [1] 12
```

```
#should be 12
```

## 4.2 Show the head and tail rows of a data frame

uncomment the line and replace XXX with head()

```
titanic %>% head() ## HEAD FUNCTION HERE
```

```
## PassengerId Survived Pclass
## 1          1         0      3
## 2          2         1      1
## 3          3         1      3
## 4          4         1      1
## 5          5         0      3
## 6          6         0      3
##
##              Name      Sex Age SibSp Parch
## 1      Braund, Mr. Owen Harris   male  22     1     0
## 2 Cumings, Mrs. John Bradley (Florence Briggs Thayer) female  38     1     0
## 3      Heikkinen, Miss. Laina female  26     0     0
## 4 Futrelle, Mrs. Jacques Heath (Lily May Peel) female  35     1     0
## 5      Allen, Mr. William Henry   male  35     0     0
## 6      Moran, Mr. James         male  NA     0     0
##
##      Ticket      Fare Cabin Embarked
## 1     A/5 21171   7.2500      S
## 2      PC 17599  71.2833     C85      C
## 3 STON/O2. 3101282   7.9250      S
## 4      113803  53.1000    C123      S
## 5      373450   8.0500      S
## 6      330877   8.4583      Q
```

uncomment the line and replace XXX with tail()

```
titanic %>% tail() ## TAIL FUNCTION HERE
```

```
##      PassengerId Survived Pclass      Name      Sex
## 886          886         0      3  Rice, Mrs. William (Margaret Norton) female
## 887          887         0      2      Montvila, Rev. Juozas   male
## 888          888         1      1      Graham, Miss. Margaret Edith female
## 889          889         0      3 Johnston, Miss. Catherine Helen "Carrie" female
## 890          890         1      1      Behr, Mr. Karl Howell   male
## 891          891         0      3      Dooley, Mr. Patrick    male
##      Age SibSp Parch      Ticket   Fare Cabin Embarked
## 886  39      0      5    382652 29.125      Q
## 887  27      0      0    211536 13.000      S
## 888  19      0      0    112053 30.000   B42      S
## 889  NA      1      2 W./C. 6607 23.450      S
## 890  26      0      0    111369 30.000  C148      C
## 891  32      0      0    370376  7.750      Q
```

inside the head() function set the argument n = 10. this should look like head(n=5) replace XXX with head

```
titanic %>% head(n=10) ## HEAD FUNCTION HERE BUT OVERRIDE THE DEFAULTS use n = 10
```

```
##      PassengerId Survived Pclass
## 1              1         0      3
## 2              2         1      1
## 3              3         1      3
## 4              4         1      1
## 5              5         0      3
## 6              6         0      3
## 7              7         0      1
## 8              8         0      3
## 9              9         1      3
## 10            10         1      2
##
##      Name      Sex Age SibSp Parch
## 1      Braund, Mr. Owen Harris   male  22      1      0
## 2 Cumings, Mrs. John Bradley (Florence Briggs Thayer) female  38      1      0
## 3      Heikkinen, Miss. Laina female  26      0      0
## 4 Futrelle, Mrs. Jacques Heath (Lily May Peel) female  35      1      0
## 5      Allen, Mr. William Henry   male  35      0      0
## 6      Moran, Mr. James          male  NA      0      0
## 7      McCarthy, Mr. Timothy J    male  54      0      0
## 8      Palsson, Master. Gosta Leonard   male   2      3      1
## 9 Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg) female  27      0      2
## 10 Nasser, Mrs. Nicholas (Adele Achem) female  14      1      0
##      Ticket   Fare Cabin Embarked
## 1      A/5 21171  7.2500      S
## 2      PC 17599 71.2833   C85      C
## 3 STON/O2. 3101282  7.9250      S
## 4      113803 53.1000  C123      S
## 5      373450  8.0500      S
## 6      330877  8.4583      Q
## 7      17463 51.8625   E46      S
```

```
## 8          349909 21.0750          S
## 9          347742 11.1333          S
## 10         237736 30.0708          C
```

inside the tail() function set the argument n = 7 this should look like tail(n=5) replace XXX with head

```
titanic %>% tail(n=7) ## TAILFUNCTION HERE use n = 7
```

```
##      PassengerId Survived Pclass                                Name      Sex
## 885           885         0      3                Sutehall, Mr. Henry Jr  male
## 886           886         0      3      Rice, Mrs. William (Margaret Norton) female
## 887           887         0      2                Montvila, Rev. Juozas  male
## 888           888         1      1                Graham, Miss. Margaret Edith female
## 889           889         0      3 Johnston, Miss. Catherine Helen "Carrie" female
## 890           890         1      1                Behr, Mr. Karl Howell  male
## 891           891         0      3                Dooley, Mr. Patrick  male
##      Age SibSp Parch      Ticket    Fare Cabin Embarked
## 885   25     0     0  SOTON/OQ 392076   7.050          S
## 886   39     0     5    382652  29.125          Q
## 887   27     0     0    211536  13.000          S
## 888   19     0     0    112053  30.000    B42          S
## 889   NA     1     2    W./C. 6607  23.450          S
## 890   26     0     0    111369  30.000   C148          C
## 891   32     0     0    370376   7.750          Q
```

### 4.3 summary()

shows the mean and the five-number statistics indicating the spread of each column's values

replace XXX with summary()

```
titanic %>% summary() # SUMMARY FUNCTION HERE
```

```
##      PassengerId      Survived      Pclass      Name
##  Min.   : 1.0      Min.   :0.0000      Min.   :1.000      Length:891
## 1st Qu.:223.5      1st Qu.:0.0000      1st Qu.:2.000      Class :character
## Median :446.0      Median :0.0000      Median :3.000      Mode  :character
## Mean   :446.0      Mean   :0.3838      Mean   :2.309
## 3rd Qu.:668.5      3rd Qu.:1.0000      3rd Qu.:3.000
## Max.   :891.0      Max.   :1.0000      Max.   :3.000
##
##      Sex      Age      SibSp      Parch
## Length:891      Min.   : 0.42      Min.   :0.000      Min.   :0.0000
## Class :character 1st Qu.:20.12      1st Qu.:0.000      1st Qu.:0.0000
## Mode  :character Median :28.00      Median :0.000      Median :0.0000
##                      Mean  :29.70      Mean  :0.523      Mean  :0.3816
##                      3rd Qu.:38.00      3rd Qu.:1.000      3rd Qu.:0.0000
##                      Max.   :80.00      Max.   :8.000      Max.   :6.0000
##                      NA's   :177
##      Ticket      Fare      Cabin      Embarked
## Length:891      Min.   : 0.00      Length:891      Length:891
## Class :character 1st Qu.: 7.91      Class :character      Class :character
```

```
## Mode :character Median : 14.45 Mode :character Mode :character
## Mean : 32.20
## 3rd Qu.: 31.00
## Max. :512.33
##
```

## 5 Data transformation

Remove unique identifiers from further analysis as they are not interesting without additional feature extractions ### selecting columns

no changes needed here.

```
titanic %>% select(Sex, Age) %>% head() # use head or tail to make sure we don't print the entire dataframe
```

```
##      Sex Age
## 1   male  22
## 2 female  38
## 3 female  26
## 4 female  35
## 5   male  35
## 6   male  NA
```

### 5.0.1 Remove columns

DO NOT UPDATE THE EXISTING DATAFRAME WITH THESE CHANGES BELOW. replace the DF with the correct dataframe name This is only to visually show how dropping a column is done.

```
titanic %>% select(-PassengerId, -Name)
```

```
##      Survived Pclass      Sex   Age SibSp Parch      Ticket     Fare
## 1           0      3   male 22.00     1     0      A/5 21171    7.2500
## 2           1      1 female 38.00     1     0      PC 17599   71.2833
## 3           1      3 female 26.00     0     0 STON/O2. 3101282    7.9250
## 4           1      1 female 35.00     1     0      113803   53.1000
## 5           0      3   male 35.00     0     0      373450    8.0500
## 6           0      3   male  NA     0     0      330877    8.4583
## 7           0      1   male 54.00     0     0       17463   51.8625
## 8           0      3   male  2.00     3     1      349909   21.0750
## 9           1      3 female 27.00     0     2      347742   11.1333
## 10          1      2 female 14.00     1     0      237736   30.0708
## 11          1      3 female  4.00     1     1      PP 9549   16.7000
## 12          1      1 female 58.00     0     0      113783   26.5500
## 13          0      3   male 20.00     0     0      A/5. 2151    8.0500
## 14          0      3   male 39.00     1     5      347082   31.2750
## 15          0      3 female 14.00     0     0      350406    7.8542
## 16          1      2 female 55.00     0     0      248706   16.0000
## 17          0      3   male  2.00     4     1      382652   29.1250
## 18          1      2   male  NA     0     0      244373   13.0000
## 19          0      3 female 31.00     1     0      345763   18.0000
## 20          1      3 female  NA     0     0        2649    7.2250
```

## 21	0	2	male	35.00	0	0	239865	26.0000
## 22	1	2	male	34.00	0	0	248698	13.0000
## 23	1	3	female	15.00	0	0	330923	8.0292
## 24	1	1	male	28.00	0	0	113788	35.5000
## 25	0	3	female	8.00	3	1	349909	21.0750
## 26	1	3	female	38.00	1	5	347077	31.3875
## 27	0	3	male	NA	0	0	2631	7.2250
## 28	0	1	male	19.00	3	2	19950	263.0000
## 29	1	3	female	NA	0	0	330959	7.8792
## 30	0	3	male	NA	0	0	349216	7.8958
## 31	0	1	male	40.00	0	0	PC 17601	27.7208
## 32	1	1	female	NA	1	0	PC 17569	146.5208
## 33	1	3	female	NA	0	0	335677	7.7500
## 34	0	2	male	66.00	0	0	C.A. 24579	10.5000
## 35	0	1	male	28.00	1	0	PC 17604	82.1708
## 36	0	1	male	42.00	1	0	113789	52.0000
## 37	1	3	male	NA	0	0	2677	7.2292
## 38	0	3	male	21.00	0	0	A./5. 2152	8.0500
## 39	0	3	female	18.00	2	0	345764	18.0000
## 40	1	3	female	14.00	1	0	2651	11.2417
## 41	0	3	female	40.00	1	0	7546	9.4750
## 42	0	2	female	27.00	1	0	11668	21.0000
## 43	0	3	male	NA	0	0	349253	7.8958
## 44	1	2	female	3.00	1	2	SC/Paris 2123	41.5792
## 45	1	3	female	19.00	0	0	330958	7.8792
## 46	0	3	male	NA	0	0	S.C./A.4. 23567	8.0500
## 47	0	3	male	NA	1	0	370371	15.5000
## 48	1	3	female	NA	0	0	14311	7.7500
## 49	0	3	male	NA	2	0	2662	21.6792
## 50	0	3	female	18.00	1	0	349237	17.8000
## 51	0	3	male	7.00	4	1	3101295	39.6875
## 52	0	3	male	21.00	0	0	A/4. 39886	7.8000
## 53	1	1	female	49.00	1	0	PC 17572	76.7292
## 54	1	2	female	29.00	1	0	2926	26.0000
## 55	0	1	male	65.00	0	1	113509	61.9792
## 56	1	1	male	NA	0	0	19947	35.5000
## 57	1	2	female	21.00	0	0	C.A. 31026	10.5000
## 58	0	3	male	28.50	0	0	2697	7.2292
## 59	1	2	female	5.00	1	2	C.A. 34651	27.7500
## 60	0	3	male	11.00	5	2	CA 2144	46.9000
## 61	0	3	male	22.00	0	0	2669	7.2292
## 62	1	1	female	38.00	0	0	113572	80.0000
## 63	0	1	male	45.00	1	0	36973	83.4750
## 64	0	3	male	4.00	3	2	347088	27.9000
## 65	0	1	male	NA	0	0	PC 17605	27.7208
## 66	1	3	male	NA	1	1	2661	15.2458
## 67	1	2	female	29.00	0	0	C.A. 29395	10.5000
## 68	0	3	male	19.00	0	0	S.P. 3464	8.1583
## 69	1	3	female	17.00	4	2	3101281	7.9250
## 70	0	3	male	26.00	2	0	315151	8.6625
## 71	0	2	male	32.00	0	0	C.A. 33111	10.5000
## 72	0	3	female	16.00	5	2	CA 2144	46.9000
## 73	0	2	male	21.00	0	0	S.O.C. 14879	73.5000
## 74	0	3	male	26.00	1	0	2680	14.4542



## 75	1	3	male	32.00	0	0	1601	56.4958
## 76	0	3	male	25.00	0	0	348123	7.6500
## 77	0	3	male	NA	0	0	349208	7.8958
## 78	0	3	male	NA	0	0	374746	8.0500
## 79	1	2	male	0.83	0	2	248738	29.0000
## 80	1	3	female	30.00	0	0	364516	12.4750
## 81	0	3	male	22.00	0	0	345767	9.0000
## 82	1	3	male	29.00	0	0	345779	9.5000
## 83	1	3	female	NA	0	0	330932	7.7875
## 84	0	1	male	28.00	0	0	113059	47.1000
## 85	1	2	female	17.00	0	0	S0/C 14885	10.5000
## 86	1	3	female	33.00	3	0	3101278	15.8500
## 87	0	3	male	16.00	1	3	W./C. 6608	34.3750
## 88	0	3	male	NA	0	0	SOTON/OQ 392086	8.0500
## 89	1	1	female	23.00	3	2	19950	263.0000
## 90	0	3	male	24.00	0	0	343275	8.0500
## 91	0	3	male	29.00	0	0	343276	8.0500
## 92	0	3	male	20.00	0	0	347466	7.8542
## 93	0	1	male	46.00	1	0	W.E.P. 5734	61.1750
## 94	0	3	male	26.00	1	2	C.A. 2315	20.5750
## 95	0	3	male	59.00	0	0	364500	7.2500
## 96	0	3	male	NA	0	0	374910	8.0500
## 97	0	1	male	71.00	0	0	PC 17754	34.6542
## 98	1	1	male	23.00	0	1	PC 17759	63.3583
## 99	1	2	female	34.00	0	1	231919	23.0000
## 100	0	2	male	34.00	1	0	244367	26.0000
## 101	0	3	female	28.00	0	0	349245	7.8958
## 102	0	3	male	NA	0	0	349215	7.8958
## 103	0	1	male	21.00	0	1	35281	77.2875
## 104	0	3	male	33.00	0	0	7540	8.6542
## 105	0	3	male	37.00	2	0	3101276	7.9250
## 106	0	3	male	28.00	0	0	349207	7.8958
## 107	1	3	female	21.00	0	0	343120	7.6500
## 108	1	3	male	NA	0	0	312991	7.7750
## 109	0	3	male	38.00	0	0	349249	7.8958
## 110	1	3	female	NA	1	0	371110	24.1500
## 111	0	1	male	47.00	0	0	110465	52.0000
## 112	0	3	female	14.50	1	0	2665	14.4542
## 113	0	3	male	22.00	0	0	324669	8.0500
## 114	0	3	female	20.00	1	0	4136	9.8250
## 115	0	3	female	17.00	0	0	2627	14.4583
## 116	0	3	male	21.00	0	0	STON/O 2. 3101294	7.9250
## 117	0	3	male	70.50	0	0	370369	7.7500
## 118	0	2	male	29.00	1	0	11668	21.0000
## 119	0	1	male	24.00	0	1	PC 17558	247.5208
## 120	0	3	female	2.00	4	2	347082	31.2750
## 121	0	2	male	21.00	2	0	S.O.C. 14879	73.5000
## 122	0	3	male	NA	0	0	A4. 54510	8.0500
## 123	0	2	male	32.50	1	0	237736	30.0708
## 124	1	2	female	32.50	0	0	27267	13.0000
## 125	0	1	male	54.00	0	1	35281	77.2875
## 126	1	3	male	12.00	1	0	2651	11.2417
## 127	0	3	male	NA	0	0	370372	7.7500
## 128	1	3	male	24.00	0	0	C 17369	7.1417

## 129	1	3 female	NA	1	1	2668	22.3583
## 130	0	3 male	45.00	0	0	347061	6.9750
## 131	0	3 male	33.00	0	0	349241	7.8958
## 132	0	3 male	20.00	0	0	SOTON/O.Q. 3101307	7.0500
## 133	0	3 female	47.00	1	0	A/5. 3337	14.5000
## 134	1	2 female	29.00	1	0	228414	26.0000
## 135	0	2 male	25.00	0	0	C.A. 29178	13.0000
## 136	0	2 male	23.00	0	0	SC/PARIS 2133	15.0458
## 137	1	1 female	19.00	0	2	11752	26.2833
## 138	0	1 male	37.00	1	0	113803	53.1000
## 139	0	3 male	16.00	0	0	7534	9.2167
## 140	0	1 male	24.00	0	0	PC 17593	79.2000
## 141	0	3 female	NA	0	2	2678	15.2458
## 142	1	3 female	22.00	0	0	347081	7.7500
## 143	1	3 female	24.00	1	0	STON/O2. 3101279	15.8500
## 144	0	3 male	19.00	0	0	365222	6.7500
## 145	0	2 male	18.00	0	0	231945	11.5000
## 146	0	2 male	19.00	1	1	C.A. 33112	36.7500
## 147	1	3 male	27.00	0	0	350043	7.7958
## 148	0	3 female	9.00	2	2	W./C. 6608	34.3750
## 149	0	2 male	36.50	0	2	230080	26.0000
## 150	0	2 male	42.00	0	0	244310	13.0000
## 151	0	2 male	51.00	0	0	S.O.P. 1166	12.5250
## 152	1	1 female	22.00	1	0	113776	66.6000
## 153	0	3 male	55.50	0	0	A.5. 11206	8.0500
## 154	0	3 male	40.50	0	2	A/5. 851	14.5000
## 155	0	3 male	NA	0	0	Fa 265302	7.3125
## 156	0	1 male	51.00	0	1	PC 17597	61.3792
## 157	1	3 female	16.00	0	0	35851	7.7333
## 158	0	3 male	30.00	0	0	SOTON/OQ 392090	8.0500
## 159	0	3 male	NA	0	0	315037	8.6625
## 160	0	3 male	NA	8	2	CA. 2343	69.5500
## 161	0	3 male	44.00	0	1	371362	16.1000
## 162	1	2 female	40.00	0	0	C.A. 33595	15.7500
## 163	0	3 male	26.00	0	0	347068	7.7750
## 164	0	3 male	17.00	0	0	315093	8.6625
## 165	0	3 male	1.00	4	1	3101295	39.6875
## 166	1	3 male	9.00	0	2	363291	20.5250
## 167	1	1 female	NA	0	1	113505	55.0000
## 168	0	3 female	45.00	1	4	347088	27.9000
## 169	0	1 male	NA	0	0	PC 17318	25.9250
## 170	0	3 male	28.00	0	0	1601	56.4958
## 171	0	1 male	61.00	0	0	111240	33.5000
## 172	0	3 male	4.00	4	1	382652	29.1250
## 173	1	3 female	1.00	1	1	347742	11.1333
## 174	0	3 male	21.00	0	0	STON/O 2. 3101280	7.9250
## 175	0	1 male	56.00	0	0	17764	30.6958
## 176	0	3 male	18.00	1	1	350404	7.8542
## 177	0	3 male	NA	3	1	4133	25.4667
## 178	0	1 female	50.00	0	0	PC 17595	28.7125
## 179	0	2 male	30.00	0	0	250653	13.0000
## 180	0	3 male	36.00	0	0	LINE	0.0000
## 181	0	3 female	NA	8	2	CA. 2343	69.5500
## 182	0	2 male	NA	0	0	SC/PARIS 2131	15.0500

## 183	0	3	male	9.00	4	2	347077	31.3875
## 184	1	2	male	1.00	2	1	230136	39.0000
## 185	1	3	female	4.00	0	2	315153	22.0250
## 186	0	1	male	NA	0	0	113767	50.0000
## 187	1	3	female	NA	1	0	370365	15.5000
## 188	1	1	male	45.00	0	0	111428	26.5500
## 189	0	3	male	40.00	1	1	364849	15.5000
## 190	0	3	male	36.00	0	0	349247	7.8958
## 191	1	2	female	32.00	0	0	234604	13.0000
## 192	0	2	male	19.00	0	0	28424	13.0000
## 193	1	3	female	19.00	1	0	350046	7.8542
## 194	1	2	male	3.00	1	1	230080	26.0000
## 195	1	1	female	44.00	0	0	PC 17610	27.7208
## 196	1	1	female	58.00	0	0	PC 17569	146.5208
## 197	0	3	male	NA	0	0	368703	7.7500
## 198	0	3	male	42.00	0	1	4579	8.4042
## 199	1	3	female	NA	0	0	370370	7.7500
## 200	0	2	female	24.00	0	0	248747	13.0000
## 201	0	3	male	28.00	0	0	345770	9.5000
## 202	0	3	male	NA	8	2	CA. 2343	69.5500
## 203	0	3	male	34.00	0	0	3101264	6.4958
## 204	0	3	male	45.50	0	0	2628	7.2250
## 205	1	3	male	18.00	0	0	A/5 3540	8.0500
## 206	0	3	female	2.00	0	1	347054	10.4625
## 207	0	3	male	32.00	1	0	3101278	15.8500
## 208	1	3	male	26.00	0	0	2699	18.7875
## 209	1	3	female	16.00	0	0	367231	7.7500
## 210	1	1	male	40.00	0	0	112277	31.0000
## 211	0	3	male	24.00	0	0	SOTON/O.Q. 3101311	7.0500
## 212	1	2	female	35.00	0	0	F.C.C. 13528	21.0000
## 213	0	3	male	22.00	0	0	A/5 21174	7.2500
## 214	0	2	male	30.00	0	0	250646	13.0000
## 215	0	3	male	NA	1	0	367229	7.7500
## 216	1	1	female	31.00	1	0	35273	113.2750
## 217	1	3	female	27.00	0	0	STON/O2. 3101283	7.9250
## 218	0	2	male	42.00	1	0	243847	27.0000
## 219	1	1	female	32.00	0	0	11813	76.2917
## 220	0	2	male	30.00	0	0	W/C 14208	10.5000
## 221	1	3	male	16.00	0	0	SOTON/OQ 392089	8.0500
## 222	0	2	male	27.00	0	0	220367	13.0000
## 223	0	3	male	51.00	0	0	21440	8.0500
## 224	0	3	male	NA	0	0	349234	7.8958
## 225	1	1	male	38.00	1	0	19943	90.0000
## 226	0	3	male	22.00	0	0	PP 4348	9.3500
## 227	1	2	male	19.00	0	0	SW/PP 751	10.5000
## 228	0	3	male	20.50	0	0	A/5 21173	7.2500
## 229	0	2	male	18.00	0	0	236171	13.0000
## 230	0	3	female	NA	3	1	4133	25.4667
## 231	1	1	female	35.00	1	0	36973	83.4750
## 232	0	3	male	29.00	0	0	347067	7.7750
## 233	0	2	male	59.00	0	0	237442	13.5000
## 234	1	3	female	5.00	4	2	347077	31.3875
## 235	0	2	male	24.00	0	0	C.A. 29566	10.5000
## 236	0	3	female	NA	0	0	W./C. 6609	7.5500

## 237	0	2 male	44.00	1	0	26707	26.0000
## 238	1	2 female	8.00	0	2	C.A. 31921	26.2500
## 239	0	2 male	19.00	0	0	28665	10.5000
## 240	0	2 male	33.00	0	0	SC0/W 1585	12.2750
## 241	0	3 female	NA	1	0	2665	14.4542
## 242	1	3 female	NA	1	0	367230	15.5000
## 243	0	2 male	29.00	0	0	W./C. 14263	10.5000
## 244	0	3 male	22.00	0	0	STON/O 2. 3101275	7.1250
## 245	0	3 male	30.00	0	0	2694	7.2250
## 246	0	1 male	44.00	2	0	19928	90.0000
## 247	0	3 female	25.00	0	0	347071	7.7750
## 248	1	2 female	24.00	0	2	250649	14.5000
## 249	1	1 male	37.00	1	1	11751	52.5542
## 250	0	2 male	54.00	1	0	244252	26.0000
## 251	0	3 male	NA	0	0	362316	7.2500
## 252	0	3 female	29.00	1	1	347054	10.4625
## 253	0	1 male	62.00	0	0	113514	26.5500
## 254	0	3 male	30.00	1	0	A/5. 3336	16.1000
## 255	0	3 female	41.00	0	2	370129	20.2125
## 256	1	3 female	29.00	0	2	2650	15.2458
## 257	1	1 female	NA	0	0	PC 17585	79.2000
## 258	1	1 female	30.00	0	0	110152	86.5000
## 259	1	1 female	35.00	0	0	PC 17755	512.3292
## 260	1	2 female	50.00	0	1	230433	26.0000
## 261	0	3 male	NA	0	0	384461	7.7500
## 262	1	3 male	3.00	4	2	347077	31.3875
## 263	0	1 male	52.00	1	1	110413	79.6500
## 264	0	1 male	40.00	0	0	112059	0.0000
## 265	0	3 female	NA	0	0	382649	7.7500
## 266	0	2 male	36.00	0	0	C.A. 17248	10.5000
## 267	0	3 male	16.00	4	1	3101295	39.6875
## 268	1	3 male	25.00	1	0	347083	7.7750
## 269	1	1 female	58.00	0	1	PC 17582	153.4625
## 270	1	1 female	35.00	0	0	PC 17760	135.6333
## 271	0	1 male	NA	0	0	113798	31.0000
## 272	1	3 male	25.00	0	0	LINE	0.0000
## 273	1	2 female	41.00	0	1	250644	19.5000
## 274	0	1 male	37.00	0	1	PC 17596	29.7000
## 275	1	3 female	NA	0	0	370375	7.7500
## 276	1	1 female	63.00	1	0	13502	77.9583
## 277	0	3 female	45.00	0	0	347073	7.7500
## 278	0	2 male	NA	0	0	239853	0.0000
## 279	0	3 male	7.00	4	1	382652	29.1250
## 280	1	3 female	35.00	1	1	C.A. 2673	20.2500
## 281	0	3 male	65.00	0	0	336439	7.7500
## 282	0	3 male	28.00	0	0	347464	7.8542
## 283	0	3 male	16.00	0	0	345778	9.5000
## 284	1	3 male	19.00	0	0	A/5. 10482	8.0500
## 285	0	1 male	NA	0	0	113056	26.0000
## 286	0	3 male	33.00	0	0	349239	8.6625
## 287	1	3 male	30.00	0	0	345774	9.5000
## 288	0	3 male	22.00	0	0	349206	7.8958
## 289	1	2 male	42.00	0	0	237798	13.0000
## 290	1	3 female	22.00	0	0	370373	7.7500

## 291	1	1 female	26.00	0	0	19877	78.8500
## 292	1	1 female	19.00	1	0	11967	91.0792
## 293	0	2 male	36.00	0	0	SC/Paris 2163	12.8750
## 294	0	3 female	24.00	0	0	349236	8.8500
## 295	0	3 male	24.00	0	0	349233	7.8958
## 296	0	1 male	NA	0	0	PC 17612	27.7208
## 297	0	3 male	23.50	0	0	2693	7.2292
## 298	0	1 female	2.00	1	2	113781	151.5500
## 299	1	1 male	NA	0	0	19988	30.5000
## 300	1	1 female	50.00	0	1	PC 17558	247.5208
## 301	1	3 female	NA	0	0	9234	7.7500
## 302	1	3 male	NA	2	0	367226	23.2500
## 303	0	3 male	19.00	0	0	LINE	0.0000
## 304	1	2 female	NA	0	0	226593	12.3500
## 305	0	3 male	NA	0	0	A/5 2466	8.0500
## 306	1	1 male	0.92	1	2	113781	151.5500
## 307	1	1 female	NA	0	0	17421	110.8833
## 308	1	1 female	17.00	1	0	PC 17758	108.9000
## 309	0	2 male	30.00	1	0	P/PP 3381	24.0000
## 310	1	1 female	30.00	0	0	PC 17485	56.9292
## 311	1	1 female	24.00	0	0	11767	83.1583
## 312	1	1 female	18.00	2	2	PC 17608	262.3750
## 313	0	2 female	26.00	1	1	250651	26.0000
## 314	0	3 male	28.00	0	0	349243	7.8958
## 315	0	2 male	43.00	1	1	F.C.C. 13529	26.2500
## 316	1	3 female	26.00	0	0	347470	7.8542
## 317	1	2 female	24.00	1	0	244367	26.0000
## 318	0	2 male	54.00	0	0	29011	14.0000
## 319	1	1 female	31.00	0	2	36928	164.8667
## 320	1	1 female	40.00	1	1	16966	134.5000
## 321	0	3 male	22.00	0	0	A/5 21172	7.2500
## 322	0	3 male	27.00	0	0	349219	7.8958
## 323	1	2 female	30.00	0	0	234818	12.3500
## 324	1	2 female	22.00	1	1	248738	29.0000
## 325	0	3 male	NA	8	2	CA. 2343	69.5500
## 326	1	1 female	36.00	0	0	PC 17760	135.6333
## 327	0	3 male	61.00	0	0	345364	6.2375
## 328	1	2 female	36.00	0	0	28551	13.0000
## 329	1	3 female	31.00	1	1	363291	20.5250
## 330	1	1 female	16.00	0	1	111361	57.9792
## 331	1	3 female	NA	2	0	367226	23.2500
## 332	0	1 male	45.50	0	0	113043	28.5000
## 333	0	1 male	38.00	0	1	PC 17582	153.4625
## 334	0	3 male	16.00	2	0	345764	18.0000
## 335	1	1 female	NA	1	0	PC 17611	133.6500
## 336	0	3 male	NA	0	0	349225	7.8958
## 337	0	1 male	29.00	1	0	113776	66.6000
## 338	1	1 female	41.00	0	0	16966	134.5000
## 339	1	3 male	45.00	0	0	7598	8.0500
## 340	0	1 male	45.00	0	0	113784	35.5000
## 341	1	2 male	2.00	1	1	230080	26.0000
## 342	1	1 female	24.00	3	2	19950	263.0000
## 343	0	2 male	28.00	0	0	248740	13.0000
## 344	0	2 male	25.00	0	0	244361	13.0000

## 345	0	2	male	36.00	0	0	229236	13.0000
## 346	1	2	female	24.00	0	0	248733	13.0000
## 347	1	2	female	40.00	0	0	31418	13.0000
## 348	1	3	female	NA	1	0	386525	16.1000
## 349	1	3	male	3.00	1	1	C.A. 37671	15.9000
## 350	0	3	male	42.00	0	0	315088	8.6625
## 351	0	3	male	23.00	0	0	7267	9.2250
## 352	0	1	male	NA	0	0	113510	35.0000
## 353	0	3	male	15.00	1	1	2695	7.2292
## 354	0	3	male	25.00	1	0	349237	17.8000
## 355	0	3	male	NA	0	0	2647	7.2250
## 356	0	3	male	28.00	0	0	345783	9.5000
## 357	1	1	female	22.00	0	1	113505	55.0000
## 358	0	2	female	38.00	0	0	237671	13.0000
## 359	1	3	female	NA	0	0	330931	7.8792
## 360	1	3	female	NA	0	0	330980	7.8792
## 361	0	3	male	40.00	1	4	347088	27.9000
## 362	0	2	male	29.00	1	0	SC/PARIS 2167	27.7208
## 363	0	3	female	45.00	0	1	2691	14.4542
## 364	0	3	male	35.00	0	0	SOTON/O.Q. 3101310	7.0500
## 365	0	3	male	NA	1	0	370365	15.5000
## 366	0	3	male	30.00	0	0	C 7076	7.2500
## 367	1	1	female	60.00	1	0	110813	75.2500
## 368	1	3	female	NA	0	0	2626	7.2292
## 369	1	3	female	NA	0	0	14313	7.7500
## 370	1	1	female	24.00	0	0	PC 17477	69.3000
## 371	1	1	male	25.00	1	0	11765	55.4417
## 372	0	3	male	18.00	1	0	3101267	6.4958
## 373	0	3	male	19.00	0	0	323951	8.0500
## 374	0	1	male	22.00	0	0	PC 17760	135.6333
## 375	0	3	female	3.00	3	1	349909	21.0750
## 376	1	1	female	NA	1	0	PC 17604	82.1708
## 377	1	3	female	22.00	0	0	C 7077	7.2500
## 378	0	1	male	27.00	0	2	113503	211.5000
## 379	0	3	male	20.00	0	0	2648	4.0125
## 380	0	3	male	19.00	0	0	347069	7.7750
## 381	1	1	female	42.00	0	0	PC 17757	227.5250
## 382	1	3	female	1.00	0	2	2653	15.7417
## 383	0	3	male	32.00	0	0	STON/O 2. 3101293	7.9250
## 384	1	1	female	35.00	1	0	113789	52.0000
## 385	0	3	male	NA	0	0	349227	7.8958
## 386	0	2	male	18.00	0	0	S.O.C. 14879	73.5000
## 387	0	3	male	1.00	5	2	CA 2144	46.9000
## 388	1	2	female	36.00	0	0	27849	13.0000
## 389	0	3	male	NA	0	0	367655	7.7292
## 390	1	2	female	17.00	0	0	SC 1748	12.0000
## 391	1	1	male	36.00	1	2	113760	120.0000
## 392	1	3	male	21.00	0	0	350034	7.7958
## 393	0	3	male	28.00	2	0	3101277	7.9250
## 394	1	1	female	23.00	1	0	35273	113.2750
## 395	1	3	female	24.00	0	2	PP 9549	16.7000
## 396	0	3	male	22.00	0	0	350052	7.7958
## 397	0	3	female	31.00	0	0	350407	7.8542
## 398	0	2	male	46.00	0	0	28403	26.0000

## 399	0	2	male	23.00	0	0	244278	10.5000
## 400	1	2	female	28.00	0	0	240929	12.6500
## 401	1	3	male	39.00	0	0	STON/O 2. 3101289	7.9250
## 402	0	3	male	26.00	0	0	341826	8.0500
## 403	0	3	female	21.00	1	0	4137	9.8250
## 404	0	3	male	28.00	1	0	STON/O2. 3101279	15.8500
## 405	0	3	female	20.00	0	0	315096	8.6625
## 406	0	2	male	34.00	1	0	28664	21.0000
## 407	0	3	male	51.00	0	0	347064	7.7500
## 408	1	2	male	3.00	1	1	29106	18.7500
## 409	0	3	male	21.00	0	0	312992	7.7750
## 410	0	3	female	NA	3	1	4133	25.4667
## 411	0	3	male	NA	0	0	349222	7.8958
## 412	0	3	male	NA	0	0	394140	6.8583
## 413	1	1	female	33.00	1	0	19928	90.0000
## 414	0	2	male	NA	0	0	239853	0.0000
## 415	1	3	male	44.00	0	0	STON/O 2. 3101269	7.9250
## 416	0	3	female	NA	0	0	343095	8.0500
## 417	1	2	female	34.00	1	1	28220	32.5000
## 418	1	2	female	18.00	0	2	250652	13.0000
## 419	0	2	male	30.00	0	0	28228	13.0000
## 420	0	3	female	10.00	0	2	345773	24.1500
## 421	0	3	male	NA	0	0	349254	7.8958
## 422	0	3	male	21.00	0	0	A/5. 13032	7.7333
## 423	0	3	male	29.00	0	0	315082	7.8750
## 424	0	3	female	28.00	1	1	347080	14.4000
## 425	0	3	male	18.00	1	1	370129	20.2125
## 426	0	3	male	NA	0	0	A/4. 34244	7.2500
## 427	1	2	female	28.00	1	0	2003	26.0000
## 428	1	2	female	19.00	0	0	250655	26.0000
## 429	0	3	male	NA	0	0	364851	7.7500
## 430	1	3	male	32.00	0	0	SOTON/O.Q. 392078	8.0500
## 431	1	1	male	28.00	0	0	110564	26.5500
## 432	1	3	female	NA	1	0	376564	16.1000
## 433	1	2	female	42.00	1	0	SC/AH 3085	26.0000
## 434	0	3	male	17.00	0	0	STON/O 2. 3101274	7.1250
## 435	0	1	male	50.00	1	0	13507	55.9000
## 436	1	1	female	14.00	1	2	113760	120.0000
## 437	0	3	female	21.00	2	2	W./C. 6608	34.3750
## 438	1	2	female	24.00	2	3	29106	18.7500
## 439	0	1	male	64.00	1	4	19950	263.0000
## 440	0	2	male	31.00	0	0	C.A. 18723	10.5000
## 441	1	2	female	45.00	1	1	F.C.C. 13529	26.2500
## 442	0	3	male	20.00	0	0	345769	9.5000
## 443	0	3	male	25.00	1	0	347076	7.7750
## 444	1	2	female	28.00	0	0	230434	13.0000
## 445	1	3	male	NA	0	0	65306	8.1125
## 446	1	1	male	4.00	0	2	33638	81.8583
## 447	1	2	female	13.00	0	1	250644	19.5000
## 448	1	1	male	34.00	0	0	113794	26.5500
## 449	1	3	female	5.00	2	1	2666	19.2583
## 450	1	1	male	52.00	0	0	113786	30.5000
## 451	0	2	male	36.00	1	2	C.A. 34651	27.7500
## 452	0	3	male	NA	1	0	65303	19.9667

## 453	0	1	male	30.00	0	0	113051	27.7500
## 454	1	1	male	49.00	1	0	17453	89.1042
## 455	0	3	male	NA	0	0	A/5 2817	8.0500
## 456	1	3	male	29.00	0	0	349240	7.8958
## 457	0	1	male	65.00	0	0	13509	26.5500
## 458	1	1	female	NA	1	0	17464	51.8625
## 459	1	2	female	50.00	0	0	F.C.C. 13531	10.5000
## 460	0	3	male	NA	0	0	371060	7.7500
## 461	1	1	male	48.00	0	0	19952	26.5500
## 462	0	3	male	34.00	0	0	364506	8.0500
## 463	0	1	male	47.00	0	0	111320	38.5000
## 464	0	2	male	48.00	0	0	234360	13.0000
## 465	0	3	male	NA	0	0	A/S 2816	8.0500
## 466	0	3	male	38.00	0	0	SOTON/O.Q. 3101306	7.0500
## 467	0	2	male	NA	0	0	239853	0.0000
## 468	0	1	male	56.00	0	0	113792	26.5500
## 469	0	3	male	NA	0	0	36209	7.7250
## 470	1	3	female	0.75	2	1	2666	19.2583
## 471	0	3	male	NA	0	0	323592	7.2500
## 472	0	3	male	38.00	0	0	315089	8.6625
## 473	1	2	female	33.00	1	2	C.A. 34651	27.7500
## 474	1	2	female	23.00	0	0	SC/AH Basle 541	13.7917
## 475	0	3	female	22.00	0	0	7553	9.8375
## 476	0	1	male	NA	0	0	110465	52.0000
## 477	0	2	male	34.00	1	0	31027	21.0000
## 478	0	3	male	29.00	1	0	3460	7.0458
## 479	0	3	male	22.00	0	0	350060	7.5208
## 480	1	3	female	2.00	0	1	3101298	12.2875
## 481	0	3	male	9.00	5	2	CA 2144	46.9000
## 482	0	2	male	NA	0	0	239854	0.0000
## 483	0	3	male	50.00	0	0	A/5 3594	8.0500
## 484	1	3	female	63.00	0	0	4134	9.5875
## 485	1	1	male	25.00	1	0	11967	91.0792
## 486	0	3	female	NA	3	1	4133	25.4667
## 487	1	1	female	35.00	1	0	19943	90.0000
## 488	0	1	male	58.00	0	0	11771	29.7000
## 489	0	3	male	30.00	0	0	A.5. 18509	8.0500
## 490	1	3	male	9.00	1	1	C.A. 37671	15.9000
## 491	0	3	male	NA	1	0	65304	19.9667
## 492	0	3	male	21.00	0	0	SOTON/OQ 3101317	7.2500
## 493	0	1	male	55.00	0	0	113787	30.5000
## 494	0	1	male	71.00	0	0	PC 17609	49.5042
## 495	0	3	male	21.00	0	0	A/4 45380	8.0500
## 496	0	3	male	NA	0	0	2627	14.4583
## 497	1	1	female	54.00	1	0	36947	78.2667
## 498	0	3	male	NA	0	0	C.A. 6212	15.1000
## 499	0	1	female	25.00	1	2	113781	151.5500
## 500	0	3	male	24.00	0	0	350035	7.7958
## 501	0	3	male	17.00	0	0	315086	8.6625
## 502	0	3	female	21.00	0	0	364846	7.7500
## 503	0	3	female	NA	0	0	330909	7.6292
## 504	0	3	female	37.00	0	0	4135	9.5875
## 505	1	1	female	16.00	0	0	110152	86.5000
## 506	0	1	male	18.00	1	0	PC 17758	108.9000



## 507	1	2 female	33.00	0	2	26360	26.0000
## 508	1	1 male	NA	0	0	111427	26.5500
## 509	0	3 male	28.00	0	0	C 4001	22.5250
## 510	1	3 male	26.00	0	0	1601	56.4958
## 511	1	3 male	29.00	0	0	382651	7.7500
## 512	0	3 male	NA	0	0	SOTON/OQ 3101316	8.0500
## 513	1	1 male	36.00	0	0	PC 17473	26.2875
## 514	1	1 female	54.00	1	0	PC 17603	59.4000
## 515	0	3 male	24.00	0	0	349209	7.4958
## 516	0	1 male	47.00	0	0	36967	34.0208
## 517	1	2 female	34.00	0	0	C.A. 34260	10.5000
## 518	0	3 male	NA	0	0	371110	24.1500
## 519	1	2 female	36.00	1	0	226875	26.0000
## 520	0	3 male	32.00	0	0	349242	7.8958
## 521	1	1 female	30.00	0	0	12749	93.5000
## 522	0	3 male	22.00	0	0	349252	7.8958
## 523	0	3 male	NA	0	0	2624	7.2250
## 524	1	1 female	44.00	0	1	111361	57.9792
## 525	0	3 male	NA	0	0	2700	7.2292
## 526	0	3 male	40.50	0	0	367232	7.7500
## 527	1	2 female	50.00	0	0	W./C. 14258	10.5000
## 528	0	1 male	NA	0	0	PC 17483	221.7792
## 529	0	3 male	39.00	0	0	3101296	7.9250
## 530	0	2 male	23.00	2	1	29104	11.5000
## 531	1	2 female	2.00	1	1	26360	26.0000
## 532	0	3 male	NA	0	0	2641	7.2292
## 533	0	3 male	17.00	1	1	2690	7.2292
## 534	1	3 female	NA	0	2	2668	22.3583
## 535	0	3 female	30.00	0	0	315084	8.6625
## 536	1	2 female	7.00	0	2	F.C.C. 13529	26.2500
## 537	0	1 male	45.00	0	0	113050	26.5500
## 538	1	1 female	30.00	0	0	PC 17761	106.4250
## 539	0	3 male	NA	0	0	364498	14.5000
## 540	1	1 female	22.00	0	2	13568	49.5000
## 541	1	1 female	36.00	0	2	WE/P 5735	71.0000
## 542	0	3 female	9.00	4	2	347082	31.2750
## 543	0	3 female	11.00	4	2	347082	31.2750
## 544	1	2 male	32.00	1	0	2908	26.0000
## 545	0	1 male	50.00	1	0	PC 17761	106.4250
## 546	0	1 male	64.00	0	0	693	26.0000
## 547	1	2 female	19.00	1	0	2908	26.0000
## 548	1	2 male	NA	0	0	SC/PARIS 2146	13.8625
## 549	0	3 male	33.00	1	1	363291	20.5250
## 550	1	2 male	8.00	1	1	C.A. 33112	36.7500
## 551	1	1 male	17.00	0	2	17421	110.8833
## 552	0	2 male	27.00	0	0	244358	26.0000
## 553	0	3 male	NA	0	0	330979	7.8292
## 554	1	3 male	22.00	0	0	2620	7.2250
## 555	1	3 female	22.00	0	0	347085	7.7750
## 556	0	1 male	62.00	0	0	113807	26.5500
## 557	1	1 female	48.00	1	0	11755	39.6000
## 558	0	1 male	NA	0	0	PC 17757	227.5250
## 559	1	1 female	39.00	1	1	110413	79.6500
## 560	1	3 female	36.00	1	0	345572	17.4000

## 561	0	3	male	NA	0	0	372622	7.7500
## 562	0	3	male	40.00	0	0	349251	7.8958
## 563	0	2	male	28.00	0	0	218629	13.5000
## 564	0	3	male	NA	0	0	SOTON/OQ 392082	8.0500
## 565	0	3	female	NA	0	0	SOTON/O.Q. 392087	8.0500
## 566	0	3	male	24.00	2	0	A/4 48871	24.1500
## 567	0	3	male	19.00	0	0	349205	7.8958
## 568	0	3	female	29.00	0	4	349909	21.0750
## 569	0	3	male	NA	0	0	2686	7.2292
## 570	1	3	male	32.00	0	0	350417	7.8542
## 571	1	2	male	62.00	0	0	S.W./PP 752	10.5000
## 572	1	1	female	53.00	2	0	11769	51.4792
## 573	1	1	male	36.00	0	0	PC 17474	26.3875
## 574	1	3	female	NA	0	0	14312	7.7500
## 575	0	3	male	16.00	0	0	A/4. 20589	8.0500
## 576	0	3	male	19.00	0	0	358585	14.5000
## 577	1	2	female	34.00	0	0	243880	13.0000
## 578	1	1	female	39.00	1	0	13507	55.9000
## 579	0	3	female	NA	1	0	2689	14.4583
## 580	1	3	male	32.00	0	0	STON/O 2. 3101286	7.9250
## 581	1	2	female	25.00	1	1	237789	30.0000
## 582	1	1	female	39.00	1	1	17421	110.8833
## 583	0	2	male	54.00	0	0	28403	26.0000
## 584	0	1	male	36.00	0	0	13049	40.1250
## 585	0	3	male	NA	0	0	3411	8.7125
## 586	1	1	female	18.00	0	2	110413	79.6500
## 587	0	2	male	47.00	0	0	237565	15.0000
## 588	1	1	male	60.00	1	1	13567	79.2000
## 589	0	3	male	22.00	0	0	14973	8.0500
## 590	0	3	male	NA	0	0	A./5. 3235	8.0500
## 591	0	3	male	35.00	0	0	STON/O 2. 3101273	7.1250
## 592	1	1	female	52.00	1	0	36947	78.2667
## 593	0	3	male	47.00	0	0	A/5 3902	7.2500
## 594	0	3	female	NA	0	2	364848	7.7500
## 595	0	2	male	37.00	1	0	SC/AH 29037	26.0000
## 596	0	3	male	36.00	1	1	345773	24.1500
## 597	1	2	female	NA	0	0	248727	33.0000
## 598	0	3	male	49.00	0	0	LINE	0.0000
## 599	0	3	male	NA	0	0	2664	7.2250
## 600	1	1	male	49.00	1	0	PC 17485	56.9292
## 601	1	2	female	24.00	2	1	243847	27.0000
## 602	0	3	male	NA	0	0	349214	7.8958
## 603	0	1	male	NA	0	0	113796	42.4000
## 604	0	3	male	44.00	0	0	364511	8.0500
## 605	1	1	male	35.00	0	0	111426	26.5500
## 606	0	3	male	36.00	1	0	349910	15.5500
## 607	0	3	male	30.00	0	0	349246	7.8958
## 608	1	1	male	27.00	0	0	113804	30.5000
## 609	1	2	female	22.00	1	2	SC/Paris 2123	41.5792
## 610	1	1	female	40.00	0	0	PC 17582	153.4625
## 611	0	3	female	39.00	1	5	347082	31.2750
## 612	0	3	male	NA	0	0	SOTON/O.Q. 3101305	7.0500
## 613	1	3	female	NA	1	0	367230	15.5000
## 614	0	3	male	NA	0	0	370377	7.7500

## 615	0	3	male	35.00	0	0	364512	8.0500
## 616	1	2	female	24.00	1	2	220845	65.0000
## 617	0	3	male	34.00	1	1	347080	14.4000
## 618	0	3	female	26.00	1	0	A/5. 3336	16.1000
## 619	1	2	female	4.00	2	1	230136	39.0000
## 620	0	2	male	26.00	0	0	31028	10.5000
## 621	0	3	male	27.00	1	0	2659	14.4542
## 622	1	1	male	42.00	1	0	11753	52.5542
## 623	1	3	male	20.00	1	1	2653	15.7417
## 624	0	3	male	21.00	0	0	350029	7.8542
## 625	0	3	male	21.00	0	0	54636	16.1000
## 626	0	1	male	61.00	0	0	36963	32.3208
## 627	0	2	male	57.00	0	0	219533	12.3500
## 628	1	1	female	21.00	0	0	13502	77.9583
## 629	0	3	male	26.00	0	0	349224	7.8958
## 630	0	3	male	NA	0	0	334912	7.7333
## 631	1	1	male	80.00	0	0	27042	30.0000
## 632	0	3	male	51.00	0	0	347743	7.0542
## 633	1	1	male	32.00	0	0	13214	30.5000
## 634	0	1	male	NA	0	0	112052	0.0000
## 635	0	3	female	9.00	3	2	347088	27.9000
## 636	1	2	female	28.00	0	0	237668	13.0000
## 637	0	3	male	32.00	0	0	STON/O 2. 3101292	7.9250
## 638	0	2	male	31.00	1	1	C.A. 31921	26.2500
## 639	0	3	female	41.00	0	5	3101295	39.6875
## 640	0	3	male	NA	1	0	376564	16.1000
## 641	0	3	male	20.00	0	0	350050	7.8542
## 642	1	1	female	24.00	0	0	PC 17477	69.3000
## 643	0	3	female	2.00	3	2	347088	27.9000
## 644	1	3	male	NA	0	0	1601	56.4958
## 645	1	3	female	0.75	2	1	2666	19.2583
## 646	1	1	male	48.00	1	0	PC 17572	76.7292
## 647	0	3	male	19.00	0	0	349231	7.8958
## 648	1	1	male	56.00	0	0	13213	35.5000
## 649	0	3	male	NA	0	0	S.O./P.P. 751	7.5500
## 650	1	3	female	23.00	0	0	CA. 2314	7.5500
## 651	0	3	male	NA	0	0	349221	7.8958
## 652	1	2	female	18.00	0	1	231919	23.0000
## 653	0	3	male	21.00	0	0	8475	8.4333
## 654	1	3	female	NA	0	0	330919	7.8292
## 655	0	3	female	18.00	0	0	365226	6.7500
## 656	0	2	male	24.00	2	0	S.O.C. 14879	73.5000
## 657	0	3	male	NA	0	0	349223	7.8958
## 658	0	3	female	32.00	1	1	364849	15.5000
## 659	0	2	male	23.00	0	0	29751	13.0000
## 660	0	1	male	58.00	0	2	35273	113.2750
## 661	1	1	male	50.00	2	0	PC 17611	133.6500
## 662	0	3	male	40.00	0	0	2623	7.2250
## 663	0	1	male	47.00	0	0	5727	25.5875
## 664	0	3	male	36.00	0	0	349210	7.4958
## 665	1	3	male	20.00	1	0	STON/O 2. 3101285	7.9250
## 666	0	2	male	32.00	2	0	S.O.C. 14879	73.5000
## 667	0	2	male	25.00	0	0	234686	13.0000
## 668	0	3	male	NA	0	0	312993	7.7750

## 669	0	3	male	43.00	0	0	A/5	3536	8.0500
## 670	1	1	female	NA	1	0		19996	52.0000
## 671	1	2	female	40.00	1	1		29750	39.0000
## 672	0	1	male	31.00	1	0	F.C.	12750	52.0000
## 673	0	2	male	70.00	0	0	C.A.	24580	10.5000
## 674	1	2	male	31.00	0	0		244270	13.0000
## 675	0	2	male	NA	0	0		239856	0.0000
## 676	0	3	male	18.00	0	0		349912	7.7750
## 677	0	3	male	24.50	0	0		342826	8.0500
## 678	1	3	female	18.00	0	0		4138	9.8417
## 679	0	3	female	43.00	1	6	CA	2144	46.9000
## 680	1	1	male	36.00	0	1	PC	17755	512.3292
## 681	0	3	female	NA	0	0		330935	8.1375
## 682	1	1	male	27.00	0	0	PC	17572	76.7292
## 683	0	3	male	20.00	0	0		6563	9.2250
## 684	0	3	male	14.00	5	2	CA	2144	46.9000
## 685	0	2	male	60.00	1	1		29750	39.0000
## 686	0	2	male	25.00	1	2	SC/Paris	2123	41.5792
## 687	0	3	male	14.00	4	1		3101295	39.6875
## 688	0	3	male	19.00	0	0		349228	10.1708
## 689	0	3	male	18.00	0	0		350036	7.7958
## 690	1	1	female	15.00	0	1		24160	211.3375
## 691	1	1	male	31.00	1	0		17474	57.0000
## 692	1	3	female	4.00	0	1		349256	13.4167
## 693	1	3	male	NA	0	0		1601	56.4958
## 694	0	3	male	25.00	0	0		2672	7.2250
## 695	0	1	male	60.00	0	0		113800	26.5500
## 696	0	2	male	52.00	0	0		248731	13.5000
## 697	0	3	male	44.00	0	0		363592	8.0500
## 698	1	3	female	NA	0	0		35852	7.7333
## 699	0	1	male	49.00	1	1		17421	110.8833
## 700	0	3	male	42.00	0	0		348121	7.6500
## 701	1	1	female	18.00	1	0	PC	17757	227.5250
## 702	1	1	male	35.00	0	0	PC	17475	26.2875
## 703	0	3	female	18.00	0	1		2691	14.4542
## 704	0	3	male	25.00	0	0		36864	7.7417
## 705	0	3	male	26.00	1	0		350025	7.8542
## 706	0	2	male	39.00	0	0		250655	26.0000
## 707	1	2	female	45.00	0	0		223596	13.5000
## 708	1	1	male	42.00	0	0	PC	17476	26.2875
## 709	1	1	female	22.00	0	0		113781	151.5500
## 710	1	3	male	NA	1	1		2661	15.2458
## 711	1	1	female	24.00	0	0	PC	17482	49.5042
## 712	0	1	male	NA	0	0		113028	26.5500
## 713	1	1	male	48.00	1	0		19996	52.0000
## 714	0	3	male	29.00	0	0		7545	9.4833
## 715	0	2	male	52.00	0	0		250647	13.0000
## 716	0	3	male	19.00	0	0		348124	7.6500
## 717	1	1	female	38.00	0	0	PC	17757	227.5250
## 718	1	2	female	27.00	0	0		34218	10.5000
## 719	0	3	male	NA	0	0		36568	15.5000
## 720	0	3	male	33.00	0	0		347062	7.7750
## 721	1	2	female	6.00	0	1		248727	33.0000
## 722	0	3	male	17.00	1	0		350048	7.0542

## 723	0	2	male	34.00	0	0	12233	13.0000
## 724	0	2	male	50.00	0	0	250643	13.0000
## 725	1	1	male	27.00	1	0	113806	53.1000
## 726	0	3	male	20.00	0	0	315094	8.6625
## 727	1	2	female	30.00	3	0	31027	21.0000
## 728	1	3	female	NA	0	0	36866	7.7375
## 729	0	2	male	25.00	1	0	236853	26.0000
## 730	0	3	female	25.00	1	0	STON/02. 3101271	7.9250
## 731	1	1	female	29.00	0	0	24160	211.3375
## 732	0	3	male	11.00	0	0	2699	18.7875
## 733	0	2	male	NA	0	0	239855	0.0000
## 734	0	2	male	23.00	0	0	28425	13.0000
## 735	0	2	male	23.00	0	0	233639	13.0000
## 736	0	3	male	28.50	0	0	54636	16.1000
## 737	0	3	female	48.00	1	3	W./C. 6608	34.3750
## 738	1	1	male	35.00	0	0	PC 17755	512.3292
## 739	0	3	male	NA	0	0	349201	7.8958
## 740	0	3	male	NA	0	0	349218	7.8958
## 741	1	1	male	NA	0	0	16988	30.0000
## 742	0	1	male	36.00	1	0	19877	78.8500
## 743	1	1	female	21.00	2	2	PC 17608	262.3750
## 744	0	3	male	24.00	1	0	376566	16.1000
## 745	1	3	male	31.00	0	0	STON/O 2. 3101288	7.9250
## 746	0	1	male	70.00	1	1	WE/P 5735	71.0000
## 747	0	3	male	16.00	1	1	C.A. 2673	20.2500
## 748	1	2	female	30.00	0	0	250648	13.0000
## 749	0	1	male	19.00	1	0	113773	53.1000
## 750	0	3	male	31.00	0	0	335097	7.7500
## 751	1	2	female	4.00	1	1	29103	23.0000
## 752	1	3	male	6.00	0	1	392096	12.4750
## 753	0	3	male	33.00	0	0	345780	9.5000
## 754	0	3	male	23.00	0	0	349204	7.8958
## 755	1	2	female	48.00	1	2	220845	65.0000
## 756	1	2	male	0.67	1	1	250649	14.5000
## 757	0	3	male	28.00	0	0	350042	7.7958
## 758	0	2	male	18.00	0	0	29108	11.5000
## 759	0	3	male	34.00	0	0	363294	8.0500
## 760	1	1	female	33.00	0	0	110152	86.5000
## 761	0	3	male	NA	0	0	358585	14.5000
## 762	0	3	male	41.00	0	0	SOTON/02 3101272	7.1250
## 763	1	3	male	20.00	0	0	2663	7.2292
## 764	1	1	female	36.00	1	2	113760	120.0000
## 765	0	3	male	16.00	0	0	347074	7.7750
## 766	1	1	female	51.00	1	0	13502	77.9583
## 767	0	1	male	NA	0	0	112379	39.6000
## 768	0	3	female	30.50	0	0	364850	7.7500
## 769	0	3	male	NA	1	0	371110	24.1500
## 770	0	3	male	32.00	0	0	8471	8.3625
## 771	0	3	male	24.00	0	0	345781	9.5000
## 772	0	3	male	48.00	0	0	350047	7.8542
## 773	0	2	female	57.00	0	0	S.O./P.P. 3	10.5000
## 774	0	3	male	NA	0	0	2674	7.2250
## 775	1	2	female	54.00	1	3	29105	23.0000
## 776	0	3	male	18.00	0	0	347078	7.7500

## 777	0	3	male	NA	0	0	383121	7.7500
## 778	1	3	female	5.00	0	0	364516	12.4750
## 779	0	3	male	NA	0	0	36865	7.7375
## 780	1	1	female	43.00	0	1	24160	211.3375
## 781	1	3	female	13.00	0	0	2687	7.2292
## 782	1	1	female	17.00	1	0	17474	57.0000
## 783	0	1	male	29.00	0	0	113501	30.0000
## 784	0	3	male	NA	1	2	W./C. 6607	23.4500
## 785	0	3	male	25.00	0	0	SOTON/O.Q. 3101312	7.0500
## 786	0	3	male	25.00	0	0	374887	7.2500
## 787	1	3	female	18.00	0	0	3101265	7.4958
## 788	0	3	male	8.00	4	1	382652	29.1250
## 789	1	3	male	1.00	1	2	C.A. 2315	20.5750
## 790	0	1	male	46.00	0	0	PC 17593	79.2000
## 791	0	3	male	NA	0	0	12460	7.7500
## 792	0	2	male	16.00	0	0	239865	26.0000
## 793	0	3	female	NA	8	2	CA. 2343	69.5500
## 794	0	1	male	NA	0	0	PC 17600	30.6958
## 795	0	3	male	25.00	0	0	349203	7.8958
## 796	0	2	male	39.00	0	0	28213	13.0000
## 797	1	1	female	49.00	0	0	17465	25.9292
## 798	1	3	female	31.00	0	0	349244	8.6833
## 799	0	3	male	30.00	0	0	2685	7.2292
## 800	0	3	female	30.00	1	1	345773	24.1500
## 801	0	2	male	34.00	0	0	250647	13.0000
## 802	1	2	female	31.00	1	1	C.A. 31921	26.2500
## 803	1	1	male	11.00	1	2	113760	120.0000
## 804	1	3	male	0.42	0	1	2625	8.5167
## 805	1	3	male	27.00	0	0	347089	6.9750
## 806	0	3	male	31.00	0	0	347063	7.7750
## 807	0	1	male	39.00	0	0	112050	0.0000
## 808	0	3	female	18.00	0	0	347087	7.7750
## 809	0	2	male	39.00	0	0	248723	13.0000
## 810	1	1	female	33.00	1	0	113806	53.1000
## 811	0	3	male	26.00	0	0	3474	7.8875
## 812	0	3	male	39.00	0	0	A/4 48871	24.1500
## 813	0	2	male	35.00	0	0	28206	10.5000
## 814	0	3	female	6.00	4	2	347082	31.2750
## 815	0	3	male	30.50	0	0	364499	8.0500
## 816	0	1	male	NA	0	0	112058	0.0000
## 817	0	3	female	23.00	0	0	STON/O2. 3101290	7.9250
## 818	0	2	male	31.00	1	1	S.C./PARIS 2079	37.0042
## 819	0	3	male	43.00	0	0	C 7075	6.4500
## 820	0	3	male	10.00	3	2	347088	27.9000
## 821	1	1	female	52.00	1	1	12749	93.5000
## 822	1	3	male	27.00	0	0	315098	8.6625
## 823	0	1	male	38.00	0	0	19972	0.0000
## 824	1	3	female	27.00	0	1	392096	12.4750
## 825	0	3	male	2.00	4	1	3101295	39.6875
## 826	0	3	male	NA	0	0	368323	6.9500
## 827	0	3	male	NA	0	0	1601	56.4958
## 828	1	2	male	1.00	0	2	S.C./PARIS 2079	37.0042
## 829	1	3	male	NA	0	0	367228	7.7500
## 830	1	1	female	62.00	0	0	113572	80.0000

## 831	1	3 female	15.00	1	0	2659	14.4542
## 832	1	2 male	0.83	1	1	29106	18.7500
## 833	0	3 male	NA	0	0	2671	7.2292
## 834	0	3 male	23.00	0	0	347468	7.8542
## 835	0	3 male	18.00	0	0	2223	8.3000
## 836	1	1 female	39.00	1	1	PC 17756	83.1583
## 837	0	3 male	21.00	0	0	315097	8.6625
## 838	0	3 male	NA	0	0	392092	8.0500
## 839	1	3 male	32.00	0	0	1601	56.4958
## 840	1	1 male	NA	0	0	11774	29.7000
## 841	0	3 male	20.00	0	0	SOTON/02 3101287	7.9250
## 842	0	2 male	16.00	0	0	S.O./P.P. 3	10.5000
## 843	1	1 female	30.00	0	0	113798	31.0000
## 844	0	3 male	34.50	0	0	2683	6.4375
## 845	0	3 male	17.00	0	0	315090	8.6625
## 846	0	3 male	42.00	0	0	C.A. 5547	7.5500
## 847	0	3 male	NA	8	2	CA. 2343	69.5500
## 848	0	3 male	35.00	0	0	349213	7.8958
## 849	0	2 male	28.00	0	1	248727	33.0000
## 850	1	1 female	NA	1	0	17453	89.1042
## 851	0	3 male	4.00	4	2	347082	31.2750
## 852	0	3 male	74.00	0	0	347060	7.7750
## 853	0	3 female	9.00	1	1	2678	15.2458
## 854	1	1 female	16.00	0	1	PC 17592	39.4000
## 855	0	2 female	44.00	1	0	244252	26.0000
## 856	1	3 female	18.00	0	1	392091	9.3500
## 857	1	1 female	45.00	1	1	36928	164.8667
## 858	1	1 male	51.00	0	0	113055	26.5500
## 859	1	3 female	24.00	0	3	2666	19.2583
## 860	0	3 male	NA	0	0	2629	7.2292
## 861	0	3 male	41.00	2	0	350026	14.1083
## 862	0	2 male	21.00	1	0	28134	11.5000
## 863	1	1 female	48.00	0	0	17466	25.9292
## 864	0	3 female	NA	8	2	CA. 2343	69.5500
## 865	0	2 male	24.00	0	0	233866	13.0000
## 866	1	2 female	42.00	0	0	236852	13.0000
## 867	1	2 female	27.00	1	0	SC/PARIS 2149	13.8583
## 868	0	1 male	31.00	0	0	PC 17590	50.4958
## 869	0	3 male	NA	0	0	345777	9.5000
## 870	1	3 male	4.00	1	1	347742	11.1333
## 871	0	3 male	26.00	0	0	349248	7.8958
## 872	1	1 female	47.00	1	1	11751	52.5542
## 873	0	1 male	33.00	0	0	695	5.0000
## 874	0	3 male	47.00	0	0	345765	9.0000
## 875	1	2 female	28.00	1	0	P/PP 3381	24.0000
## 876	1	3 female	15.00	0	0	2667	7.2250
## 877	0	3 male	20.00	0	0	7534	9.8458
## 878	0	3 male	19.00	0	0	349212	7.8958
## 879	0	3 male	NA	0	0	349217	7.8958
## 880	1	1 female	56.00	0	1	11767	83.1583
## 881	1	2 female	25.00	0	1	230433	26.0000
## 882	0	3 male	33.00	0	0	349257	7.8958
## 883	0	3 female	22.00	0	0	7552	10.5167
## 884	0	2 male	28.00	0	0	C.A./SOTON 34068	10.5000

## 885	0	3	male	25.00	0	0	SOTON/OQ	392076	7.0500
## 886	0	3	female	39.00	0	5		382652	29.1250
## 887	0	2	male	27.00	0	0		211536	13.0000
## 888	1	1	female	19.00	0	0		112053	30.0000
## 889	0	3	female	NA	1	2	W./C.	6607	23.4500
## 890	1	1	male	26.00	0	0		111369	30.0000
## 891	0	3	male	32.00	0	0		370376	7.7500
##									
			Cabin	Embarked					
## 1				S					
## 2			C85	C					
## 3				S					
## 4			C123	S					
## 5				S					
## 6				Q					
## 7			E46	S					
## 8				S					
## 9				S					
## 10				C					
## 11			G6	S					
## 12			C103	S					
## 13				S					
## 14				S					
## 15				S					
## 16				S					
## 17				Q					
## 18				S					
## 19				S					
## 20				C					
## 21				S					
## 22			D56	S					
## 23				Q					
## 24			A6	S					
## 25				S					
## 26				S					
## 27				C					
## 28			C23 C25 C27	S					
## 29				Q					
## 30				S					
## 31				C					
## 32			B78	C					
## 33				Q					
## 34				S					
## 35				C					
## 36				S					
## 37				C					
## 38				S					
## 39				S					
## 40				C					
## 41				S					
## 42				S					
## 43				C					
## 44				C					
## 45				Q					
## 46				S					



## 47		Q
## 48		Q
## 49		C
## 50		S
## 51		S
## 52		S
## 53	D33	C
## 54		S
## 55	B30	C
## 56	C52	S
## 57		S
## 58		C
## 59		S
## 60		S
## 61		C
## 62	B28	
## 63	C83	S
## 64		S
## 65		C
## 66		C
## 67	F33	S
## 68		S
## 69		S
## 70		S
## 71		S
## 72		S
## 73		S
## 74		C
## 75		S
## 76	F G73	S
## 77		S
## 78		S
## 79		S
## 80		S
## 81		S
## 82		S
## 83		Q
## 84		S
## 85		S
## 86		S
## 87		S
## 88		S
## 89	C23 C25 C27	S
## 90		S
## 91		S
## 92		S
## 93	E31	S
## 94		S
## 95		S
## 96		S
## 97	A5	C
## 98	D10 D12	C
## 99		S
## 100		S

## 101		S
## 102		S
## 103	D26	S
## 104		S
## 105		S
## 106		S
## 107		S
## 108		S
## 109		S
## 110		Q
## 111	C110	S
## 112		C
## 113		S
## 114		S
## 115		C
## 116		S
## 117		Q
## 118		S
## 119	B58 B60	C
## 120		S
## 121		S
## 122		S
## 123		C
## 124	E101	S
## 125	D26	S
## 126		C
## 127		Q
## 128		S
## 129	F E69	C
## 130		S
## 131		C
## 132		S
## 133		S
## 134		S
## 135		S
## 136		C
## 137	D47	S
## 138	C123	S
## 139		S
## 140	B86	C
## 141		C
## 142		S
## 143		S
## 144		Q
## 145		S
## 146		S
## 147		S
## 148		S
## 149	F2	S
## 150		S
## 151		S
## 152	C2	S
## 153		S
## 154		S

## 155		S
## 156		C
## 157		Q
## 158		S
## 159		S
## 160		S
## 161		S
## 162		S
## 163		S
## 164		S
## 165		S
## 166		S
## 167	E33	S
## 168		S
## 169		S
## 170		S
## 171	B19	S
## 172		Q
## 173		S
## 174		S
## 175	A7	C
## 176		S
## 177		S
## 178	C49	C
## 179		S
## 180		S
## 181		S
## 182		C
## 183		S
## 184	F4	S
## 185		S
## 186	A32	S
## 187		Q
## 188		S
## 189		Q
## 190		S
## 191		S
## 192		S
## 193		S
## 194	F2	S
## 195	B4	C
## 196	B80	C
## 197		Q
## 198		S
## 199		Q
## 200		S
## 201		S
## 202		S
## 203		S
## 204		C
## 205		S
## 206	G6	S
## 207		S
## 208		C

## 209		Q
## 210	A31	C
## 211		S
## 212		S
## 213		S
## 214		S
## 215		Q
## 216	D36	C
## 217		S
## 218		S
## 219	D15	C
## 220		S
## 221		S
## 222		S
## 223		S
## 224		S
## 225	C93	S
## 226		S
## 227		S
## 228		S
## 229		S
## 230		S
## 231	C83	S
## 232		S
## 233		S
## 234		S
## 235		S
## 236		S
## 237		S
## 238		S
## 239		S
## 240		S
## 241		C
## 242		Q
## 243		S
## 244		S
## 245		C
## 246	C78	Q
## 247		S
## 248		S
## 249	D35	S
## 250		S
## 251		S
## 252	G6	S
## 253	C87	S
## 254		S
## 255		S
## 256		C
## 257		C
## 258	B77	S
## 259		C
## 260		S
## 261		Q
## 262		S

## 263	E67	S
## 264	B94	S
## 265		Q
## 266		S
## 267		S
## 268		S
## 269	C125	S
## 270	C99	S
## 271		S
## 272		S
## 273		S
## 274	C118	C
## 275		Q
## 276	D7	S
## 277		S
## 278		S
## 279		Q
## 280		S
## 281		Q
## 282		S
## 283		S
## 284		S
## 285	A19	S
## 286		C
## 287		S
## 288		S
## 289		S
## 290		Q
## 291		S
## 292	B49	C
## 293	D	C
## 294		S
## 295		S
## 296		C
## 297		C
## 298	C22 C26	S
## 299	C106	S
## 300	B58 B60	C
## 301		Q
## 302		Q
## 303		S
## 304	E101	Q
## 305		S
## 306	C22 C26	S
## 307		C
## 308	C65	C
## 309		C
## 310	E36	C
## 311	C54	C
## 312	B57 B59 B63 B66	C
## 313		S
## 314		S
## 315		S
## 316		S

## 317		S
## 318		S
## 319	C7	S
## 320	E34	C
## 321		S
## 322		S
## 323		Q
## 324		S
## 325		S
## 326	C32	C
## 327		S
## 328	D	S
## 329		S
## 330	B18	C
## 331		Q
## 332	C124	S
## 333	C91	S
## 334		S
## 335		S
## 336		S
## 337	C2	S
## 338	E40	C
## 339		S
## 340	T	S
## 341	F2	S
## 342	C23 C25 C27	S
## 343		S
## 344		S
## 345		S
## 346	F33	S
## 347		S
## 348		S
## 349		S
## 350		S
## 351		S
## 352	C128	S
## 353		C
## 354		S
## 355		C
## 356		S
## 357	E33	S
## 358		S
## 359		Q
## 360		Q
## 361		S
## 362		C
## 363		C
## 364		S
## 365		Q
## 366		S
## 367	D37	C
## 368		C
## 369		Q
## 370	B35	C

## 371	E50	C
## 372		S
## 373		S
## 374		C
## 375		S
## 376		C
## 377		S
## 378	C82	C
## 379		C
## 380		S
## 381		C
## 382		C
## 383		S
## 384		S
## 385		S
## 386		S
## 387		S
## 388		S
## 389		Q
## 390		C
## 391	B96 B98	S
## 392		S
## 393		S
## 394	D36	C
## 395	G6	S
## 396		S
## 397		S
## 398		S
## 399		S
## 400		S
## 401		S
## 402		S
## 403		S
## 404		S
## 405		S
## 406		S
## 407		S
## 408		S
## 409		S
## 410		S
## 411		S
## 412		Q
## 413	C78	Q
## 414		S
## 415		S
## 416		S
## 417		S
## 418		S
## 419		S
## 420		S
## 421		C
## 422		Q
## 423		S
## 424		S

## 425		S
## 426		S
## 427		S
## 428		S
## 429		Q
## 430	E10	S
## 431	C52	S
## 432		S
## 433		S
## 434		S
## 435	E44	S
## 436	B96 B98	S
## 437		S
## 438		S
## 439	C23 C25 C27	S
## 440		S
## 441		S
## 442		S
## 443		S
## 444		S
## 445		S
## 446	A34	S
## 447		S
## 448		S
## 449		C
## 450	C104	S
## 451		S
## 452		S
## 453	C111	C
## 454	C92	C
## 455		S
## 456		C
## 457	E38	S
## 458	D21	S
## 459		S
## 460		Q
## 461	E12	S
## 462		S
## 463	E63	S
## 464		S
## 465		S
## 466		S
## 467		S
## 468		S
## 469		Q
## 470		C
## 471		S
## 472		S
## 473		S
## 474	D	C
## 475		S
## 476	A14	S
## 477		S
## 478		S



## 479		S
## 480		S
## 481		S
## 482		S
## 483		S
## 484		S
## 485	B49	C
## 486		S
## 487	C93	S
## 488	B37	C
## 489		S
## 490		S
## 491		S
## 492		S
## 493	C30	S
## 494		C
## 495		S
## 496		C
## 497	D20	C
## 498		S
## 499	C22 C26	S
## 500		S
## 501		S
## 502		Q
## 503		Q
## 504		S
## 505	B79	S
## 506	C65	C
## 507		S
## 508		S
## 509		S
## 510		S
## 511		Q
## 512		S
## 513	E25	S
## 514		C
## 515		S
## 516	D46	S
## 517	F33	S
## 518		Q
## 519		S
## 520		S
## 521	B73	S
## 522		S
## 523		C
## 524	B18	C
## 525		C
## 526		Q
## 527		S
## 528	C95	S
## 529		S
## 530		S
## 531		S
## 532		C

## 533		C
## 534		C
## 535		S
## 536		S
## 537	B38	S
## 538		C
## 539		S
## 540	B39	C
## 541	B22	S
## 542		S
## 543		S
## 544		S
## 545	C86	C
## 546		S
## 547		S
## 548		C
## 549		S
## 550		S
## 551	C70	C
## 552		S
## 553		Q
## 554		C
## 555		S
## 556		S
## 557	A16	C
## 558		C
## 559	E67	S
## 560		S
## 561		Q
## 562		S
## 563		S
## 564		S
## 565		S
## 566		S
## 567		S
## 568		S
## 569		C
## 570		S
## 571		S
## 572	C101	S
## 573	E25	S
## 574		Q
## 575		S
## 576		S
## 577		S
## 578	E44	S
## 579		C
## 580		S
## 581		S
## 582	C68	C
## 583		S
## 584	A10	C
## 585		C
## 586	E68	S

## 587		S
## 588	B41	C
## 589		S
## 590		S
## 591		S
## 592	D20	C
## 593		S
## 594		Q
## 595		S
## 596		S
## 597		S
## 598		S
## 599		C
## 600	A20	C
## 601		S
## 602		S
## 603		S
## 604		S
## 605		C
## 606		S
## 607		S
## 608		S
## 609		C
## 610	C125	S
## 611		S
## 612		S
## 613		Q
## 614		Q
## 615		S
## 616		S
## 617		S
## 618		S
## 619	F4	S
## 620		S
## 621		C
## 622	D19	S
## 623		C
## 624		S
## 625		S
## 626	D50	S
## 627		Q
## 628	D9	S
## 629		S
## 630		Q
## 631	A23	S
## 632		S
## 633	B50	C
## 634		S
## 635		S
## 636		S
## 637		S
## 638		S
## 639		S
## 640		S

## 641		S
## 642	B35	C
## 643		S
## 644		S
## 645		C
## 646	D33	C
## 647		S
## 648	A26	C
## 649		S
## 650		S
## 651		S
## 652		S
## 653		S
## 654		Q
## 655		Q
## 656		S
## 657		S
## 658		Q
## 659		S
## 660	D48	C
## 661		S
## 662		C
## 663	E58	S
## 664		S
## 665		S
## 666		S
## 667		S
## 668		S
## 669		S
## 670	C126	S
## 671		S
## 672	B71	S
## 673		S
## 674		S
## 675		S
## 676		S
## 677		S
## 678		S
## 679		S
## 680	B51 B53 B55	C
## 681		Q
## 682	D49	C
## 683		S
## 684		S
## 685		S
## 686		C
## 687		S
## 688		S
## 689		S
## 690	B5	S
## 691	B20	S
## 692		C
## 693		S
## 694		C

## 695		S
## 696		S
## 697		S
## 698		Q
## 699	C68	C
## 700	F G63	S
## 701	C62 C64	C
## 702	E24	S
## 703		C
## 704		Q
## 705		S
## 706		S
## 707		S
## 708	E24	S
## 709		S
## 710		C
## 711	C90	C
## 712	C124	S
## 713	C126	S
## 714		S
## 715		S
## 716	F G73	S
## 717	C45	C
## 718	E101	S
## 719		Q
## 720		S
## 721		S
## 722		S
## 723		S
## 724		S
## 725	E8	S
## 726		S
## 727		S
## 728		Q
## 729		S
## 730		S
## 731	B5	S
## 732		C
## 733		S
## 734		S
## 735		S
## 736		S
## 737		S
## 738	B101	C
## 739		S
## 740		S
## 741	D45	S
## 742	C46	S
## 743	B57 B59 B63 B66	C
## 744		S
## 745		S
## 746	B22	S
## 747		S
## 748		S

## 749	D30	S
## 750		Q
## 751		S
## 752	E121	S
## 753		S
## 754		S
## 755		S
## 756		S
## 757		S
## 758		S
## 759		S
## 760	B77	S
## 761		S
## 762		S
## 763		C
## 764	B96 B98	S
## 765		S
## 766	D11	S
## 767		C
## 768		Q
## 769		Q
## 770		S
## 771		S
## 772		S
## 773	E77	S
## 774		C
## 775		S
## 776		S
## 777	F38	Q
## 778		S
## 779		Q
## 780	B3	S
## 781		C
## 782	B20	S
## 783	D6	S
## 784		S
## 785		S
## 786		S
## 787		S
## 788		Q
## 789		S
## 790	B82 B84	C
## 791		Q
## 792		S
## 793		S
## 794		C
## 795		S
## 796		S
## 797	D17	S
## 798		S
## 799		C
## 800		S
## 801		S
## 802		S

## 803	B96 B98	S
## 804		C
## 805		S
## 806		S
## 807	A36	S
## 808		S
## 809		S
## 810	E8	S
## 811		S
## 812		S
## 813		S
## 814		S
## 815		S
## 816	B102	S
## 817		S
## 818		C
## 819		S
## 820		S
## 821	B69	S
## 822		S
## 823		S
## 824	E121	S
## 825		S
## 826		Q
## 827		S
## 828		C
## 829		Q
## 830	B28	
## 831		C
## 832		S
## 833		C
## 834		S
## 835		S
## 836	E49	C
## 837		S
## 838		S
## 839		S
## 840	C47	C
## 841		S
## 842		S
## 843		C
## 844		C
## 845		S
## 846		S
## 847		S
## 848		C
## 849		S
## 850	C92	C
## 851		S
## 852		S
## 853		C
## 854	D28	S
## 855		S
## 856		S

```
## 857          S
## 858          E17 S
## 859          C
## 860          C
## 861          S
## 862          S
## 863          D17 S
## 864          S
## 865          S
## 866          S
## 867          C
## 868          A24 S
## 869          S
## 870          S
## 871          S
## 872          D35 S
## 873    B51 B53 B55 S
## 874          S
## 875          C
## 876          C
## 877          S
## 878          S
## 879          S
## 880          C50 C
## 881          S
## 882          S
## 883          S
## 884          S
## 885          S
## 886          Q
## 887          S
## 888          B42 S
## 889          S
## 890          C148 C
## 891          Q
```

### 5.0.2 Factor categorical columns

Change Survived and other nominal variables to factors Use structure to see data before and after the transformation

Simply uncomment to check your dataframe prior to factorizing of columns.

```
titanic %>% str()
```

```
## 'data.frame':  891 obs. of  12 variables:
## $ PassengerId: int  1 2 3 4 5 6 7 8 9 10 ...
## $ Survived   : int  0 1 1 1 0 0 0 0 1 1 ...
## $ Pclass     : int  3 1 3 1 3 3 1 3 3 2 ...
## $ Name       : chr  "Braund, Mr. Owen Harris" "Cumings, Mrs. John Bradley (Florence Briggs Thayer)"
## $ Sex        : chr  "male" "female" "female" "female" ...
## $ Age        : num  22 38 26 35 35 NA 54 2 27 14 ...
## $ SibSp      : int  1 1 0 1 0 0 0 3 0 1 ...
```



```
## $ Parch      : int  0 0 0 0 0 0 0 1 2 0 ...
## $ Ticket     : chr   "A/5 21171" "PC 17599" "STON/02. 3101282" "113803" ...
## $ Fare       : num   7.25 71.28 7.92 53.1 8.05 ...
## $ Cabin      : chr    "" "C85" "" "C123" ...
## $ Embarked   : chr    "S" "C" "S" "S" ...
```

In this block we've demonstrated multiple ways to factorize your categorical columns Choose one method and do the same for Embarked.

Show the str() after to check that it was successful.

```
titanic$Survived <- factor(titanic$Survived)
#titanic$Sex <- factor(titanic$Sex)
#titanic$Pclass <- factor(titanic$Pclass)
#titanic$Cabin <- factor(titanic$Cabin)
# now you do the same for Embarked column
titanic$Embarked <- factor(titanic$Embarked)
#tidyverse syntax
titanic <- titanic %>% mutate(Cabin = factor(Cabin))

#Check your work to make sure factorization was successful

titanic %>% str()
```

```
## 'data.frame':   891 obs. of  12 variables:
## $ PassengerId: int   1 2 3 4 5 6 7 8 9 10 ...
## $ Survived   : Factor w/ 2 levels "0","1": 1 2 2 2 1 1 1 1 2 2 ...
## $ Pclass     : int   3 1 3 1 3 3 1 3 3 2 ...
## $ Name       : chr    "Braund, Mr. Owen Harris" "Cumings, Mrs. John Bradley (Florence Briggs Thayer)"
## $ Sex        : chr    "male" "female" "female" "female" ...
## $ Age        : num    22 38 26 35 35 NA 54 2 27 14 ...
## $ SibSp      : int    1 1 0 1 0 0 0 3 0 1 ...
## $ Parch      : int    0 0 0 0 0 0 0 1 2 0 ...
## $ Ticket     : chr    "A/5 21171" "PC 17599" "STON/02. 3101282" "113803" ...
## $ Fare       : num    7.25 71.28 7.92 53.1 8.05 ...
## $ Cabin      : Factor w/ 148 levels "", "A10", "A14", ...: 1 83 1 57 1 1 131 1 1 1 ...
## $ Embarked   : Factor w/ 4 levels "", "C", "Q", "S": 4 2 4 4 4 3 4 4 4 2 ...
```

Remove observations with missing Age values.

This missing data handling approach has the obvious disadvantages of the applicability of the model to data with missing age.

To keep observations with missing Age values require careful imputation of Age missingness.

The various missing data imputation methods are beyond the knowledge required for this tutorial.

this code counts NAs. Simply uncomment and run.

```
titanic %>% summarize(across(everything(), ~ sum(is.na(.))))

## PassengerId Survived Pclass Name Sex Age SibSp Parch Ticket Fare Cabin
## 1           0         0      0    0  0 177      0      0      0      0      0
## Embarked
## 1           0
```

### 5.0.3 Drop columns

dropping columns from the dataframe

make sure to reassign the new dataframe that has dropped rows to the original dataframe name to update it. replace XXXX with the dataframe name to do so.

```
titanic_dropped <- titanic %>% drop_na()
titanic_dropped
```

##	PassengerId	Survived	Pclass
## 1	1	0	3
## 2	2	1	1
## 3	3	1	3
## 4	4	1	1
## 5	5	0	3
## 6	7	0	1
## 7	8	0	3
## 8	9	1	3
## 9	10	1	2
## 10	11	1	3
## 11	12	1	1
## 12	13	0	3
## 13	14	0	3
## 14	15	0	3
## 15	16	1	2
## 16	17	0	3
## 17	19	0	3
## 18	21	0	2
## 19	22	1	2
## 20	23	1	3
## 21	24	1	1
## 22	25	0	3
## 23	26	1	3
## 24	28	0	1
## 25	31	0	1
## 26	34	0	2
## 27	35	0	1
## 28	36	0	1
## 29	38	0	3
## 30	39	0	3
## 31	40	1	3
## 32	41	0	3
## 33	42	0	2
## 34	44	1	2
## 35	45	1	3
## 36	50	0	3
## 37	51	0	3
## 38	52	0	3
## 39	53	1	1
## 40	54	1	2
## 41	55	0	1
## 42	57	1	2
## 43	58	0	3

## 44	59	1	2
## 45	60	0	3
## 46	61	0	3
## 47	62	1	1
## 48	63	0	1
## 49	64	0	3
## 50	67	1	2
## 51	68	0	3
## 52	69	1	3
## 53	70	0	3
## 54	71	0	2
## 55	72	0	3
## 56	73	0	2
## 57	74	0	3
## 58	75	1	3
## 59	76	0	3
## 60	79	1	2
## 61	80	1	3
## 62	81	0	3
## 63	82	1	3
## 64	84	0	1
## 65	85	1	2
## 66	86	1	3
## 67	87	0	3
## 68	89	1	1
## 69	90	0	3
## 70	91	0	3
## 71	92	0	3
## 72	93	0	1
## 73	94	0	3
## 74	95	0	3
## 75	97	0	1
## 76	98	1	1
## 77	99	1	2
## 78	100	0	2
## 79	101	0	3
## 80	103	0	1
## 81	104	0	3
## 82	105	0	3
## 83	106	0	3
## 84	107	1	3
## 85	109	0	3
## 86	111	0	1
## 87	112	0	3
## 88	113	0	3
## 89	114	0	3
## 90	115	0	3
## 91	116	0	3
## 92	117	0	3
## 93	118	0	2
## 94	119	0	1
## 95	120	0	3
## 96	121	0	2
## 97	123	0	2

## 98	124	1	2
## 99	125	0	1
## 100	126	1	3
## 101	128	1	3
## 102	130	0	3
## 103	131	0	3
## 104	132	0	3
## 105	133	0	3
## 106	134	1	2
## 107	135	0	2
## 108	136	0	2
## 109	137	1	1
## 110	138	0	1
## 111	139	0	3
## 112	140	0	1
## 113	142	1	3
## 114	143	1	3
## 115	144	0	3
## 116	145	0	2
## 117	146	0	2
## 118	147	1	3
## 119	148	0	3
## 120	149	0	2
## 121	150	0	2
## 122	151	0	2
## 123	152	1	1
## 124	153	0	3
## 125	154	0	3
## 126	156	0	1
## 127	157	1	3
## 128	158	0	3
## 129	161	0	3
## 130	162	1	2
## 131	163	0	3
## 132	164	0	3
## 133	165	0	3
## 134	166	1	3
## 135	168	0	3
## 136	170	0	3
## 137	171	0	1
## 138	172	0	3
## 139	173	1	3
## 140	174	0	3
## 141	175	0	1
## 142	176	0	3
## 143	178	0	1
## 144	179	0	2
## 145	180	0	3
## 146	183	0	3
## 147	184	1	2
## 148	185	1	3
## 149	188	1	1
## 150	189	0	3
## 151	190	0	3

## 152	191	1	2
## 153	192	0	2
## 154	193	1	3
## 155	194	1	2
## 156	195	1	1
## 157	196	1	1
## 158	198	0	3
## 159	200	0	2
## 160	201	0	3
## 161	203	0	3
## 162	204	0	3
## 163	205	1	3
## 164	206	0	3
## 165	207	0	3
## 166	208	1	3
## 167	209	1	3
## 168	210	1	1
## 169	211	0	3
## 170	212	1	2
## 171	213	0	3
## 172	214	0	2
## 173	216	1	1
## 174	217	1	3
## 175	218	0	2
## 176	219	1	1
## 177	220	0	2
## 178	221	1	3
## 179	222	0	2
## 180	223	0	3
## 181	225	1	1
## 182	226	0	3
## 183	227	1	2
## 184	228	0	3
## 185	229	0	2
## 186	231	1	1
## 187	232	0	3
## 188	233	0	2
## 189	234	1	3
## 190	235	0	2
## 191	237	0	2
## 192	238	1	2
## 193	239	0	2
## 194	240	0	2
## 195	243	0	2
## 196	244	0	3
## 197	245	0	3
## 198	246	0	1
## 199	247	0	3
## 200	248	1	2
## 201	249	1	1
## 202	250	0	2
## 203	252	0	3
## 204	253	0	1
## 205	254	0	3

## 206	255	0	3
## 207	256	1	3
## 208	258	1	1
## 209	259	1	1
## 210	260	1	2
## 211	262	1	3
## 212	263	0	1
## 213	264	0	1
## 214	266	0	2
## 215	267	0	3
## 216	268	1	3
## 217	269	1	1
## 218	270	1	1
## 219	272	1	3
## 220	273	1	2
## 221	274	0	1
## 222	276	1	1
## 223	277	0	3
## 224	279	0	3
## 225	280	1	3
## 226	281	0	3
## 227	282	0	3
## 228	283	0	3
## 229	284	1	3
## 230	286	0	3
## 231	287	1	3
## 232	288	0	3
## 233	289	1	2
## 234	290	1	3
## 235	291	1	1
## 236	292	1	1
## 237	293	0	2
## 238	294	0	3
## 239	295	0	3
## 240	297	0	3
## 241	298	0	1
## 242	300	1	1
## 243	303	0	3
## 244	306	1	1
## 245	308	1	1
## 246	309	0	2
## 247	310	1	1
## 248	311	1	1
## 249	312	1	1
## 250	313	0	2
## 251	314	0	3
## 252	315	0	2
## 253	316	1	3
## 254	317	1	2
## 255	318	0	2
## 256	319	1	1
## 257	320	1	1
## 258	321	0	3
## 259	322	0	3

## 260	323	1	2
## 261	324	1	2
## 262	326	1	1
## 263	327	0	3
## 264	328	1	2
## 265	329	1	3
## 266	330	1	1
## 267	332	0	1
## 268	333	0	1
## 269	334	0	3
## 270	337	0	1
## 271	338	1	1
## 272	339	1	3
## 273	340	0	1
## 274	341	1	2
## 275	342	1	1
## 276	343	0	2
## 277	344	0	2
## 278	345	0	2
## 279	346	1	2
## 280	347	1	2
## 281	349	1	3
## 282	350	0	3
## 283	351	0	3
## 284	353	0	3
## 285	354	0	3
## 286	356	0	3
## 287	357	1	1
## 288	358	0	2
## 289	361	0	3
## 290	362	0	2
## 291	363	0	3
## 292	364	0	3
## 293	366	0	3
## 294	367	1	1
## 295	370	1	1
## 296	371	1	1
## 297	372	0	3
## 298	373	0	3
## 299	374	0	1
## 300	375	0	3
## 301	377	1	3
## 302	378	0	1
## 303	379	0	3
## 304	380	0	3
## 305	381	1	1
## 306	382	1	3
## 307	383	0	3
## 308	384	1	1
## 309	386	0	2
## 310	387	0	3
## 311	388	1	2
## 312	390	1	2
## 313	391	1	1

## 314	392	1	3
## 315	393	0	3
## 316	394	1	1
## 317	395	1	3
## 318	396	0	3
## 319	397	0	3
## 320	398	0	2
## 321	399	0	2
## 322	400	1	2
## 323	401	1	3
## 324	402	0	3
## 325	403	0	3
## 326	404	0	3
## 327	405	0	3
## 328	406	0	2
## 329	407	0	3
## 330	408	1	2
## 331	409	0	3
## 332	413	1	1
## 333	415	1	3
## 334	417	1	2
## 335	418	1	2
## 336	419	0	2
## 337	420	0	3
## 338	422	0	3
## 339	423	0	3
## 340	424	0	3
## 341	425	0	3
## 342	427	1	2
## 343	428	1	2
## 344	430	1	3
## 345	431	1	1
## 346	433	1	2
## 347	434	0	3
## 348	435	0	1
## 349	436	1	1
## 350	437	0	3
## 351	438	1	2
## 352	439	0	1
## 353	440	0	2
## 354	441	1	2
## 355	442	0	3
## 356	443	0	3
## 357	444	1	2
## 358	446	1	1
## 359	447	1	2
## 360	448	1	1
## 361	449	1	3
## 362	450	1	1
## 363	451	0	2
## 364	453	0	1
## 365	454	1	1
## 366	456	1	3
## 367	457	0	1



## 368	459	1	2
## 369	461	1	1
## 370	462	0	3
## 371	463	0	1
## 372	464	0	2
## 373	466	0	3
## 374	468	0	1
## 375	470	1	3
## 376	472	0	3
## 377	473	1	2
## 378	474	1	2
## 379	475	0	3
## 380	477	0	2
## 381	478	0	3
## 382	479	0	3
## 383	480	1	3
## 384	481	0	3
## 385	483	0	3
## 386	484	1	3
## 387	485	1	1
## 388	487	1	1
## 389	488	0	1
## 390	489	0	3
## 391	490	1	3
## 392	492	0	3
## 393	493	0	1
## 394	494	0	1
## 395	495	0	3
## 396	497	1	1
## 397	499	0	1
## 398	500	0	3
## 399	501	0	3
## 400	502	0	3
## 401	504	0	3
## 402	505	1	1
## 403	506	0	1
## 404	507	1	2
## 405	509	0	3
## 406	510	1	3
## 407	511	1	3
## 408	513	1	1
## 409	514	1	1
## 410	515	0	3
## 411	516	0	1
## 412	517	1	2
## 413	519	1	2
## 414	520	0	3
## 415	521	1	1
## 416	522	0	3
## 417	524	1	1
## 418	526	0	3
## 419	527	1	2
## 420	529	0	3
## 421	530	0	2

## 422	531	1	2
## 423	533	0	3
## 424	535	0	3
## 425	536	1	2
## 426	537	0	1
## 427	538	1	1
## 428	540	1	1
## 429	541	1	1
## 430	542	0	3
## 431	543	0	3
## 432	544	1	2
## 433	545	0	1
## 434	546	0	1
## 435	547	1	2
## 436	549	0	3
## 437	550	1	2
## 438	551	1	1
## 439	552	0	2
## 440	554	1	3
## 441	555	1	3
## 442	556	0	1
## 443	557	1	1
## 444	559	1	1
## 445	560	1	3
## 446	562	0	3
## 447	563	0	2
## 448	566	0	3
## 449	567	0	3
## 450	568	0	3
## 451	570	1	3
## 452	571	1	2
## 453	572	1	1
## 454	573	1	1
## 455	575	0	3
## 456	576	0	3
## 457	577	1	2
## 458	578	1	1
## 459	580	1	3
## 460	581	1	2
## 461	582	1	1
## 462	583	0	2
## 463	584	0	1
## 464	586	1	1
## 465	587	0	2
## 466	588	1	1
## 467	589	0	3
## 468	591	0	3
## 469	592	1	1
## 470	593	0	3
## 471	595	0	2
## 472	596	0	3
## 473	598	0	3
## 474	600	1	1
## 475	601	1	2

## 476	604	0	3
## 477	605	1	1
## 478	606	0	3
## 479	607	0	3
## 480	608	1	1
## 481	609	1	2
## 482	610	1	1
## 483	611	0	3
## 484	615	0	3
## 485	616	1	2
## 486	617	0	3
## 487	618	0	3
## 488	619	1	2
## 489	620	0	2
## 490	621	0	3
## 491	622	1	1
## 492	623	1	3
## 493	624	0	3
## 494	625	0	3
## 495	626	0	1
## 496	627	0	2
## 497	628	1	1
## 498	629	0	3
## 499	631	1	1
## 500	632	0	3
## 501	633	1	1
## 502	635	0	3
## 503	636	1	2
## 504	637	0	3
## 505	638	0	2
## 506	639	0	3
## 507	641	0	3
## 508	642	1	1
## 509	643	0	3
## 510	645	1	3
## 511	646	1	1
## 512	647	0	3
## 513	648	1	1
## 514	650	1	3
## 515	652	1	2
## 516	653	0	3
## 517	655	0	3
## 518	656	0	2
## 519	658	0	3
## 520	659	0	2
## 521	660	0	1
## 522	661	1	1
## 523	662	0	3
## 524	663	0	1
## 525	664	0	3
## 526	665	1	3
## 527	666	0	2
## 528	667	0	2
## 529	669	0	3

## 530	671	1	2
## 531	672	0	1
## 532	673	0	2
## 533	674	1	2
## 534	676	0	3
## 535	677	0	3
## 536	678	1	3
## 537	679	0	3
## 538	680	1	1
## 539	682	1	1
## 540	683	0	3
## 541	684	0	3
## 542	685	0	2
## 543	686	0	2
## 544	687	0	3
## 545	688	0	3
## 546	689	0	3
## 547	690	1	1
## 548	691	1	1
## 549	692	1	3
## 550	694	0	3
## 551	695	0	1
## 552	696	0	2
## 553	697	0	3
## 554	699	0	1
## 555	700	0	3
## 556	701	1	1
## 557	702	1	1
## 558	703	0	3
## 559	704	0	3
## 560	705	0	3
## 561	706	0	2
## 562	707	1	2
## 563	708	1	1
## 564	709	1	1
## 565	711	1	1
## 566	713	1	1
## 567	714	0	3
## 568	715	0	2
## 569	716	0	3
## 570	717	1	1
## 571	718	1	2
## 572	720	0	3
## 573	721	1	2
## 574	722	0	3
## 575	723	0	2
## 576	724	0	2
## 577	725	1	1
## 578	726	0	3
## 579	727	1	2
## 580	729	0	2
## 581	730	0	3
## 582	731	1	1
## 583	732	0	3

## 584	734	0	2
## 585	735	0	2
## 586	736	0	3
## 587	737	0	3
## 588	738	1	1
## 589	742	0	1
## 590	743	1	1
## 591	744	0	3
## 592	745	1	3
## 593	746	0	1
## 594	747	0	3
## 595	748	1	2
## 596	749	0	1
## 597	750	0	3
## 598	751	1	2
## 599	752	1	3
## 600	753	0	3
## 601	754	0	3
## 602	755	1	2
## 603	756	1	2
## 604	757	0	3
## 605	758	0	2
## 606	759	0	3
## 607	760	1	1
## 608	762	0	3
## 609	763	1	3
## 610	764	1	1
## 611	765	0	3
## 612	766	1	1
## 613	768	0	3
## 614	770	0	3
## 615	771	0	3
## 616	772	0	3
## 617	773	0	2
## 618	775	1	2
## 619	776	0	3
## 620	778	1	3
## 621	780	1	1
## 622	781	1	3
## 623	782	1	1
## 624	783	0	1
## 625	785	0	3
## 626	786	0	3
## 627	787	1	3
## 628	788	0	3
## 629	789	1	3
## 630	790	0	1
## 631	792	0	2
## 632	795	0	3
## 633	796	0	2
## 634	797	1	1
## 635	798	1	3
## 636	799	0	3
## 637	800	0	3

## 638	801	0	2
## 639	802	1	2
## 640	803	1	1
## 641	804	1	3
## 642	805	1	3
## 643	806	0	3
## 644	807	0	1
## 645	808	0	3
## 646	809	0	2
## 647	810	1	1
## 648	811	0	3
## 649	812	0	3
## 650	813	0	2
## 651	814	0	3
## 652	815	0	3
## 653	817	0	3
## 654	818	0	2
## 655	819	0	3
## 656	820	0	3
## 657	821	1	1
## 658	822	1	3
## 659	823	0	1
## 660	824	1	3
## 661	825	0	3
## 662	828	1	2
## 663	830	1	1
## 664	831	1	3
## 665	832	1	2
## 666	834	0	3
## 667	835	0	3
## 668	836	1	1
## 669	837	0	3
## 670	839	1	3
## 671	841	0	3
## 672	842	0	2
## 673	843	1	1
## 674	844	0	3
## 675	845	0	3
## 676	846	0	3
## 677	848	0	3
## 678	849	0	2
## 679	851	0	3
## 680	852	0	3
## 681	853	0	3
## 682	854	1	1
## 683	855	0	2
## 684	856	1	3
## 685	857	1	1
## 686	858	1	1
## 687	859	1	3
## 688	861	0	3
## 689	862	0	2
## 690	863	1	1
## 691	865	0	2

## 692	866	1	2
## 693	867	1	2
## 694	868	0	1
## 695	870	1	3
## 696	871	0	3
## 697	872	1	1
## 698	873	0	1
## 699	874	0	3
## 700	875	1	2
## 701	876	1	3
## 702	877	0	3
## 703	878	0	3
## 704	880	1	1
## 705	881	1	2
## 706	882	0	3
## 707	883	0	3
## 708	884	0	2
## 709	885	0	3
## 710	886	0	3
## 711	887	0	2
## 712	888	1	1
## 713	890	1	1
## 714	891	0	3

##	Name
## 1	Braund, Mr. Owen Harris
## 2	Cummings, Mrs. John Bradley (Florence Briggs Thayer)
## 3	Heikkinen, Miss. Laina
## 4	Futrelle, Mrs. Jacques Heath (Lily May Peel)
## 5	Allen, Mr. William Henry
## 6	McCarthy, Mr. Timothy J
## 7	Palsson, Master. Gosta Leonard
## 8	Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg)
## 9	Nasser, Mrs. Nicholas (Adele Achem)
## 10	Sandstrom, Miss. Marguerite Rut
## 11	Bonnell, Miss. Elizabeth
## 12	Saunderscock, Mr. William Henry
## 13	Andersson, Mr. Anders Johan
## 14	Vestrom, Miss. Hulda Amanda Adolfina
## 15	Hewlett, Mrs. (Mary D Kingcome)
## 16	Rice, Master. Eugene
## 17	Vander Planke, Mrs. Julius (Emelia Maria Vandemoortele)
## 18	Fynney, Mr. Joseph J
## 19	Beesley, Mr. Lawrence
## 20	McGowan, Miss. Anna "Annie"
## 21	Sloper, Mr. William Thompson
## 22	Palsson, Miss. Torborg Danira
## 23	Asplund, Mrs. Carl Oscar (Selma Augusta Emilia Johansson)
## 24	Fortune, Mr. Charles Alexander
## 25	Uruchurtu, Don. Manuel E
## 26	Wheadon, Mr. Edward H
## 27	Meyer, Mr. Edgar Joseph
## 28	Holverson, Mr. Alexander Oskar
## 29	Cann, Mr. Ernest Charles
## 30	Vander Planke, Miss. Augusta Maria

## 31	Nicola-Yarred, Miss. Jamila
## 32	Ahlin, Mrs. Johan (Johanna Persdotter Larsson)
## 33	Turpin, Mrs. William John Robert (Dorothy Ann Wonnacott)
## 34	Laroche, Miss. Simonne Marie Anne Andree
## 35	Devaney, Miss. Margaret Delia
## 36	Arnold-Franchi, Mrs. Josef (Josefine Franchi)
## 37	Panula, Master. Juha Niilo
## 38	Nosworthy, Mr. Richard Cater
## 39	Harper, Mrs. Henry Sleeper (Myna Haxtun)
## 40	Faunthorpe, Mrs. Lizzie (Elizabeth Anne Wilkinson)
## 41	Ostby, Mr. Engelhart Cornelius
## 42	Rugg, Miss. Emily
## 43	Novel, Mr. Mansouer
## 44	West, Miss. Constance Mirium
## 45	Goodwin, Master. William Frederick
## 46	Sirayanian, Mr. Orsen
## 47	Icard, Miss. Amelie
## 48	Harris, Mr. Henry Birkhardt
## 49	Skoog, Master. Harald
## 50	Nye, Mrs. (Elizabeth Ramell)
## 51	Crease, Mr. Ernest James
## 52	Andersson, Miss. Erna Alexandra
## 53	Kink, Mr. Vincenz
## 54	Jenkin, Mr. Stephen Curnow
## 55	Goodwin, Miss. Lillian Amy
## 56	Hood, Mr. Ambrose Jr
## 57	Chronopoulos, Mr. Apostolos
## 58	Bing, Mr. Lee
## 59	Moen, Mr. Sigurd Hansen
## 60	Caldwell, Master. Alden Gates
## 61	Dowdell, Miss. Elizabeth
## 62	Waelens, Mr. Achille
## 63	Sheerlinck, Mr. Jan Baptist
## 64	Carrau, Mr. Francisco M
## 65	Ilett, Miss. Bertha
## 66	Backstrom, Mrs. Karl Alfred (Maria Mathilda Gustafsson)
## 67	Ford, Mr. William Neal
## 68	Fortune, Miss. Mabel Helen
## 69	Celotti, Mr. Francesco
## 70	Christmann, Mr. Emil
## 71	Andreasson, Mr. Paul Edvin
## 72	Chaffee, Mr. Herbert Fuller
## 73	Dean, Mr. Bertram Frank
## 74	Coxon, Mr. Daniel
## 75	Goldschmidt, Mr. George B
## 76	Greenfield, Mr. William Bertram
## 77	Doling, Mrs. John T (Ada Julia Bone)
## 78	Kantor, Mr. Sinai
## 79	Petranec, Miss. Matilda
## 80	White, Mr. Richard Frasar
## 81	Johansson, Mr. Gustaf Joel
## 82	Gustafsson, Mr. Anders Vilhelm
## 83	Mionoff, Mr. Stoytcho
## 84	Salkjelsvik, Miss. Anna Kristine



## 85	Rekic, Mr. Tido
## 86	Porter, Mr. Walter Chamberlain
## 87	Zabour, Miss. Hileni
## 88	Barton, Mr. David John
## 89	Jussila, Miss. Katriina
## 90	Attalah, Miss. Malake
## 91	Pekoniemi, Mr. Edvard
## 92	Connors, Mr. Patrick
## 93	Turpin, Mr. William John Robert
## 94	Baxter, Mr. Quigg Edmond
## 95	Andersson, Miss. Ellis Anna Maria
## 96	Hickman, Mr. Stanley George
## 97	Nasser, Mr. Nicholas
## 98	Webber, Miss. Susan
## 99	White, Mr. Percival Wayland
## 100	Nicola-Yarred, Master. Elias
## 101	Madsen, Mr. Fridtjof Arne
## 102	Ekstrom, Mr. Johan
## 103	Drazenoic, Mr. Jozef
## 104	Coelho, Mr. Domingos Fernandeo
## 105	Robins, Mrs. Alexander A (Grace Charity Laury)
## 106	Weisz, Mrs. Leopold (Mathilde Francoise Pedé)
## 107	Sobey, Mr. Samuel James Hayden
## 108	Richard, Mr. Emile
## 109	Newsom, Miss. Helen Monypeny
## 110	Futrelle, Mr. Jacques Heath
## 111	Osen, Mr. Olaf Elon
## 112	Giglio, Mr. Victor
## 113	Nysten, Miss. Anna Sofia
## 114	Hakkarainen, Mrs. Pekka Pietari (Elin Matilda Dolck)
## 115	Burke, Mr. Jeremiah
## 116	Andrew, Mr. Edgardo Samuel
## 117	Nicholls, Mr. Joseph Charles
## 118	Andersson, Mr. August Edvard ("Wennerstrom")
## 119	Ford, Miss. Robina Maggie "Ruby"
## 120	Navratil, Mr. Michel ("Louis M Hoffman")
## 121	Byles, Rev. Thomas Roussel Davids
## 122	Bateman, Rev. Robert James
## 123	Pears, Mrs. Thomas (Edith Wearne)
## 124	Meo, Mr. Alfonzo
## 125	van Billiard, Mr. Austin Blyler
## 126	Williams, Mr. Charles Duane
## 127	Gilnagh, Miss. Katherine "Katie"
## 128	Corn, Mr. Harry
## 129	Cribb, Mr. John Hatfield
## 130	Watt, Mrs. James (Elizabeth "Bessie" Inglis Milne)
## 131	Bengtsson, Mr. John Viktor
## 132	Calic, Mr. Jovo
## 133	Panula, Master. Eino Viljami
## 134	Goldsmith, Master. Frank John William "Frankie"
## 135	Skoog, Mrs. William (Anna Bernhardina Karlsson)
## 136	Ling, Mr. Lee
## 137	Van der hoef, Mr. Wyckoff
## 138	Rice, Master. Arthur

## 139	Johnson, Miss. Eleanor Ileen
## 140	Sivola, Mr. Antti Wilhelm
## 141	Smith, Mr. James Clinch
## 142	Klasen, Mr. Klas Albin
## 143	Isham, Miss. Ann Elizabeth
## 144	Hale, Mr. Reginald
## 145	Leonard, Mr. Lionel
## 146	Asplund, Master. Clarence Gustaf Hugo
## 147	Becker, Master. Richard F
## 148	Kink-Heilmann, Miss. Luise Gretchen
## 149	Romaine, Mr. Charles Hallace ("Mr C Rolmane")
## 150	Bourke, Mr. John
## 151	Turcin, Mr. Stjepan
## 152	Pinsky, Mrs. (Rosa)
## 153	Carbines, Mr. William
## 154	Andersen-Jensen, Miss. Carla Christine Nielsine
## 155	Navratil, Master. Michel M
## 156	Brown, Mrs. James Joseph (Margaret Tobin)
## 157	Lurette, Miss. Elise
## 158	Olsen, Mr. Karl Siegwart Andreas
## 159	Yrois, Miss. Henriette ("Mrs Harbeck")
## 160	Vande Walle, Mr. Nestor Cyriel
## 161	Johanson, Mr. Jakob Alfred
## 162	Youseff, Mr. Gerious
## 163	Cohen, Mr. Gurshon "Gus"
## 164	Strom, Miss. Telma Matilda
## 165	Backstrom, Mr. Karl Alfred
## 166	Albimona, Mr. Nassef Cassem
## 167	Carr, Miss. Helen "Ellen"
## 168	Blank, Mr. Henry
## 169	Ali, Mr. Ahmed
## 170	Cameron, Miss. Clear Annie
## 171	Perkin, Mr. John Henry
## 172	Givard, Mr. Hans Kristensen
## 173	Newell, Miss. Madeleine
## 174	Honkanen, Miss. Eliina
## 175	Jacobsohn, Mr. Sidney Samuel
## 176	Bazzani, Miss. Albina
## 177	Harris, Mr. Walter
## 178	Sunderland, Mr. Victor Francis
## 179	Bracken, Mr. James H
## 180	Green, Mr. George Henry
## 181	Hoyt, Mr. Frederick Maxfield
## 182	Berglund, Mr. Karl Ivar Sven
## 183	Mellors, Mr. William John
## 184	Lovell, Mr. John Hall ("Henry")
## 185	Fahlstrom, Mr. Arne Jonas
## 186	Harris, Mrs. Henry Birkhardt (Irene Wallach)
## 187	Larsson, Mr. Bengt Edvin
## 188	Sjostedt, Mr. Ernst Adolf
## 189	Asplund, Miss. Lillian Gertrud
## 190	Leyson, Mr. Robert William Norman
## 191	Hold, Mr. Stephen
## 192	Collyer, Miss. Marjorie "Lottie"

## 193 Pengelly, Mr. Frederick William  
 ## 194 Hunt, Mr. George Henry  
 ## 195 Coleridge, Mr. Reginald Charles  
 ## 196 Maenpaa, Mr. Matti Alexanteri  
 ## 197 Attalah, Mr. Sleiman  
 ## 198 Minahan, Dr. William Edward  
 ## 199 Lindahl, Miss. Agda Thorilda Viktoria  
 ## 200 Hamalainen, Mrs. William (Anna)  
 ## 201 Beckwith, Mr. Richard Leonard  
 ## 202 Carter, Rev. Ernest Courtenay  
 ## 203 Strom, Mrs. Wilhelm (Elna Matilda Persson)  
 ## 204 Stead, Mr. William Thomas  
 ## 205 Lobb, Mr. William Arthur  
 ## 206 Rosblom, Mrs. Viktor (Helena Wilhelmina)  
 ## 207 Touma, Mrs. Darwis (Hanne Youssef Razi)  
 ## 208 Cherry, Miss. Gladys  
 ## 209 Ward, Miss. Anna  
 ## 210 Parrish, Mrs. (Lutie Davis)  
 ## 211 Asplund, Master. Edvin Rojj Felix  
 ## 212 Taussig, Mr. Emil  
 ## 213 Harrison, Mr. William  
 ## 214 Reeves, Mr. David  
 ## 215 Panula, Mr. Ernesti Arvid  
 ## 216 Persson, Mr. Ernst Ulrik  
 ## 217 Graham, Mrs. William Thompson (Edith Junkins)  
 ## 218 Bisette, Miss. Amelia  
 ## 219 Tornquist, Mr. William Henry  
 ## 220 Mellinger, Mrs. (Elizabeth Anne Maidment)  
 ## 221 Natsch, Mr. Charles H  
 ## 222 Andrews, Miss. Kornelia Theodosia  
 ## 223 Lindblom, Miss. Augusta Charlotta  
 ## 224 Rice, Master. Eric  
 ## 225 Abbott, Mrs. Stanton (Rosa Hunt)  
 ## 226 Duane, Mr. Frank  
 ## 227 Olsson, Mr. Nils Johan Goransson  
 ## 228 de Pelsmaecker, Mr. Alfons  
 ## 229 Dorking, Mr. Edward Arthur  
 ## 230 Stankovic, Mr. Ivan  
 ## 231 de Mulder, Mr. Theodore  
 ## 232 Naidenoff, Mr. Penko  
 ## 233 Hosono, Mr. Masabumi  
 ## 234 Connolly, Miss. Kate  
 ## 235 Barber, Miss. Ellen "Nellie"  
 ## 236 Bishop, Mrs. Dickinson H (Helen Walton)  
 ## 237 Levy, Mr. Rene Jacques  
 ## 238 Haas, Miss. Aloisia  
 ## 239 Mineff, Mr. Ivan  
 ## 240 Hanna, Mr. Mansour  
 ## 241 Allison, Miss. Helen Loraine  
 ## 242 Baxter, Mrs. James (Helene DeLaudeniére Chaput)  
 ## 243 Johnson, Mr. William Cahoon Jr  
 ## 244 Allison, Master. Hudson Trevor  
 ## 245 Penasco y Castellana, Mrs. Victor de Satode (Maria Josefa Perez de Soto y Vallejo)  
 ## 246 Abelson, Mr. Samuel

## 247	Francatelli, Miss. Laura Mabel
## 248	Hays, Miss. Margaret Bechstein
## 249	Ryerson, Miss. Emily Borie
## 250	Lahtinen, Mrs. William (Anna Sylfven)
## 251	Hendekovic, Mr. Ignjac
## 252	Hart, Mr. Benjamin
## 253	Nilsson, Miss. Helmina Josefina
## 254	Kantor, Mrs. Sinai (Miriam Sternin)
## 255	Moraweck, Dr. Ernest
## 256	Wick, Miss. Mary Natalie
## 257	Spedden, Mrs. Frederic Oakley (Margaretta Corning Stone)
## 258	Dennis, Mr. Samuel
## 259	Danoff, Mr. Yoto
## 260	Slayter, Miss. Hilda Mary
## 261	Caldwell, Mrs. Albert Francis (Sylvia Mae Harbaugh)
## 262	Young, Miss. Marie Grice
## 263	Nysveen, Mr. Johan Hansen
## 264	Ball, Mrs. (Ada E Hall)
## 265	Goldsmith, Mrs. Frank John (Emily Alice Brown)
## 266	Hippach, Miss. Jean Gertrude
## 267	Partner, Mr. Austen
## 268	Graham, Mr. George Edward
## 269	Vander Planke, Mr. Leo Edmondus
## 270	Pears, Mr. Thomas Clinton
## 271	Burns, Miss. Elizabeth Margaret
## 272	Dahl, Mr. Karl Edwart
## 273	Blackwell, Mr. Stephen Weart
## 274	Navratil, Master. Edmond Roger
## 275	Fortune, Miss. Alice Elizabeth
## 276	Collander, Mr. Erik Gustaf
## 277	Sedgwick, Mr. Charles Frederick Waddington
## 278	Fox, Mr. Stanley Hubert
## 279	Brown, Miss. Amelia "Mildred"
## 280	Smith, Miss. Marion Elsie
## 281	Coutts, Master. William Loch "William"
## 282	Dimic, Mr. Jovan
## 283	Odahl, Mr. Nils Martin
## 284	Elias, Mr. Tannous
## 285	Arnold-Franchi, Mr. Josef
## 286	Vanden Steen, Mr. Leo Peter
## 287	Bowerman, Miss. Elsie Edith
## 288	Funk, Miss. Annie Clemmer
## 289	Skoog, Mr. Wilhelm
## 290	del Carlo, Mr. Sebastiano
## 291	Barbara, Mrs. (Catherine David)
## 292	Asim, Mr. Adola
## 293	Adahl, Mr. Mauritz Nils Martin
## 294	Warren, Mrs. Frank Manley (Anna Sophia Atkinson)
## 295	Aubart, Mme. Leontine Pauline
## 296	Harder, Mr. George Achilles
## 297	Wiklund, Mr. Jakob Alfred
## 298	Beavan, Mr. William Thomas
## 299	Ringhini, Mr. Sante
## 300	Palsson, Miss. Stina Viola

## 301	Landergren, Miss. Aurora Adelia
## 302	Widener, Mr. Harry Elkins
## 303	Betros, Mr. Tannous
## 304	Gustafsson, Mr. Karl Gideon
## 305	Bidois, Miss. Rosalie
## 306	Nakid, Miss. Maria ("Mary")
## 307	Tikkanen, Mr. Juho
## 308	Holverson, Mrs. Alexander Oskar (Mary Aline Towner)
## 309	Davies, Mr. Charles Henry
## 310	Goodwin, Master. Sidney Leonard
## 311	Buss, Miss. Kate
## 312	Lehmann, Miss. Bertha
## 313	Carter, Mr. William Ernest
## 314	Jansson, Mr. Carl Olof
## 315	Gustafsson, Mr. Johan Birger
## 316	Newell, Miss. Marjorie
## 317	Sandstrom, Mrs. Hjalmar (Agnes Charlotta Bengtsson)
## 318	Johansson, Mr. Erik
## 319	Olsson, Miss. Elina
## 320	McKane, Mr. Peter David
## 321	Pain, Dr. Alfred
## 322	Trout, Mrs. William H (Jessie L)
## 323	Niskanen, Mr. Juha
## 324	Adams, Mr. John
## 325	Jussila, Miss. Mari Aina
## 326	Hakkarainen, Mr. Pekka Pietari
## 327	Oreskovic, Miss. Marija
## 328	Gale, Mr. Shadrach
## 329	Widegren, Mr. Carl/Charles Peter
## 330	Richards, Master. William Rowe
## 331	Birkeland, Mr. Hans Martin Monsen
## 332	Minahan, Miss. Daisy E
## 333	Sundman, Mr. Johan Julian
## 334	Drew, Mrs. James Vivian (Lulu Thorne Christian)
## 335	Silven, Miss. Lyyli Karoliina
## 336	Matthews, Mr. William John
## 337	Van Impe, Miss. Catharina
## 338	Charters, Mr. David
## 339	Zimmerman, Mr. Leo
## 340	Danbom, Mrs. Ernst Gilbert (Anna Sigrid Maria Brogren)
## 341	Rosblom, Mr. Viktor Richard
## 342	Clarke, Mrs. Charles V (Ada Maria Winfield)
## 343	Phillips, Miss. Kate Florence ("Mrs Kate Louise Phillips Marshall")
## 344	Pickard, Mr. Berk (Berk Trembisky)
## 345	Bjornstrom-Steffansson, Mr. Mauritz Hakan
## 346	Louch, Mrs. Charles Alexander (Alice Adelaide Slow)
## 347	Kallio, Mr. Nikolai Erland
## 348	Silvey, Mr. William Baird
## 349	Carter, Miss. Lucile Polk
## 350	Ford, Miss. Doolina Margaret "Daisy"
## 351	Richards, Mrs. Sidney (Emily Hocking)
## 352	Fortune, Mr. Mark
## 353	Kvillner, Mr. Johan Henrik Johannesson
## 354	Hart, Mrs. Benjamin (Esther Ada Bloomfield)

## 355	Hampe, Mr. Leon
## 356	Petterson, Mr. Johan Emil
## 357	Reynaldo, Ms. Encarnacion
## 358	Dodge, Master. Washington
## 359	Mellinger, Miss. Madeleine Violet
## 360	Seward, Mr. Frederic Kimber
## 361	Baclini, Miss. Marie Catherine
## 362	Peuchen, Major. Arthur Godfrey
## 363	West, Mr. Edwy Arthur
## 364	Foreman, Mr. Benjamin Laventall
## 365	Goldenberg, Mr. Samuel L
## 366	Jalsevac, Mr. Ivan
## 367	Millet, Mr. Francis Davis
## 368	Toomey, Miss. Ellen
## 369	Anderson, Mr. Harry
## 370	Morley, Mr. William
## 371	Gee, Mr. Arthur H
## 372	Milling, Mr. Jacob Christian
## 373	Goncalves, Mr. Manuel Estanslas
## 374	Smart, Mr. John Montgomery
## 375	Baclini, Miss. Helene Barbara
## 376	Cacic, Mr. Luka
## 377	West, Mrs. Edwy Arthur (Ada Mary Worth)
## 378	Jerwan, Mrs. Amin S (Marie Marthe Thuillard)
## 379	Strandberg, Miss. Ida Sofia
## 380	Renouf, Mr. Peter Henry
## 381	Braund, Mr. Lewis Richard
## 382	Karlsson, Mr. Nils August
## 383	Hirvonen, Miss. Hildur E
## 384	Goodwin, Master. Harold Victor
## 385	Rouse, Mr. Richard Henry
## 386	Turkula, Mrs. (Hedwig)
## 387	Bishop, Mr. Dickinson H
## 388	Hoyt, Mrs. Frederick Maxfield (Jane Anne Forby)
## 389	Kent, Mr. Edward Austin
## 390	Somerton, Mr. Francis William
## 391	Coutts, Master. Eden Leslie "Neville"
## 392	Windelov, Mr. Einar
## 393	Molson, Mr. Harry Markland
## 394	Artagaveytia, Mr. Ramon
## 395	Stanley, Mr. Edward Roland
## 396	Eustis, Miss. Elizabeth Mussey
## 397	Allison, Mrs. Hudson J C (Bessie Waldo Daniels)
## 398	Svensson, Mr. Olof
## 399	Calic, Mr. Petar
## 400	Canavan, Miss. Mary
## 401	Laitinen, Miss. Kristina Sofia
## 402	Maioni, Miss. Roberta
## 403	Penasco y Castellana, Mr. Victor de Satode
## 404	Quick, Mrs. Frederick Charles (Jane Richards)
## 405	Olsen, Mr. Henry Margido
## 406	Lang, Mr. Fang
## 407	Daly, Mr. Eugene Patrick
## 408	McGough, Mr. James Robert

## 409 Rothschild, Mrs. Martin (Elizabeth L. Barrett)  
 ## 410 Coleff, Mr. Satio  
 ## 411 Walker, Mr. William Anderson  
 ## 412 Lemoire, Mrs. (Amelia Milley)  
 ## 413 Angle, Mrs. William A (Florence "Mary" Agnes Hughes)  
 ## 414 Pavlovic, Mr. Stefo  
 ## 415 Perreault, Miss. Anne  
 ## 416 Vovk, Mr. Janko  
 ## 417 Hippach, Mrs. Louis Albert (Ida Sophia Fischer)  
 ## 418 Farrell, Mr. James  
 ## 419 Ridsdale, Miss. Lucy  
 ## 420 Salonen, Mr. Johan Werner  
 ## 421 Hocking, Mr. Richard George  
 ## 422 Quick, Miss. Phyllis May  
 ## 423 Elias, Mr. Joseph Jr  
 ## 424 Cacic, Miss. Marija  
 ## 425 Hart, Miss. Eva Miriam  
 ## 426 Butt, Major. Archibald Willingham  
 ## 427 LeRoy, Miss. Bertha  
 ## 428 Frolicher, Miss. Hedwig Margaritha  
 ## 429 Crosby, Miss. Harriet R  
 ## 430 Andersson, Miss. Ingeborg Constanzia  
 ## 431 Andersson, Miss. Sigrid Elisabeth  
 ## 432 Beane, Mr. Edward  
 ## 433 Douglas, Mr. Walter Donald  
 ## 434 Nicholson, Mr. Arthur Ernest  
 ## 435 Beane, Mrs. Edward (Ethel Clarke)  
 ## 436 Goldsmith, Mr. Frank John  
 ## 437 Davies, Master. John Morgan Jr  
 ## 438 Thayer, Mr. John Borland Jr  
 ## 439 Sharp, Mr. Percival James R  
 ## 440 Leeni, Mr. Fahim ("Philip Zenni")  
 ## 441 Ohman, Miss. Velin  
 ## 442 Wright, Mr. George  
 ## 443 Duff Gordon, Lady. (Lucille Christiana Sutherland) ("Mrs Morgan")  
 ## 444 Taussig, Mrs. Emil (Tillie Mandelbaum)  
 ## 445 de Messemaeker, Mrs. Guillaume Joseph (Emma)  
 ## 446 Sivic, Mr. Husein  
 ## 447 Norman, Mr. Robert Douglas  
 ## 448 Davies, Mr. Alfred J  
 ## 449 Stoytcheff, Mr. Ilia  
 ## 450 Palsson, Mrs. Nils (Alma Cornelia Berglund)  
 ## 451 Jonsson, Mr. Carl  
 ## 452 Harris, Mr. George  
 ## 453 Appleton, Mrs. Edward Dale (Charlotte Lamson)  
 ## 454 Flynn, Mr. John Irwin ("Irving")  
 ## 455 Rush, Mr. Alfred George John  
 ## 456 Patchett, Mr. George  
 ## 457 Garside, Miss. Ethel  
 ## 458 Silvey, Mrs. William Baird (Alice Munger)  
 ## 459 Jussila, Mr. Eiriik  
 ## 460 Christy, Miss. Julie Rachel  
 ## 461 Thayer, Mrs. John Borland (Marian Longstreth Morris)  
 ## 462 Downton, Mr. William James

## 463	Ross, Mr. John Hugo
## 464	Taussig, Miss. Ruth
## 465	Jarvis, Mr. John Denzil
## 466	Frolicher-Stehli, Mr. Maxmillian
## 467	Gilinski, Mr. Eliezer
## 468	Rintamaki, Mr. Matti
## 469	Stephenson, Mrs. Walter Bertram (Martha Eustis)
## 470	Elsbury, Mr. William James
## 471	Chapman, Mr. John Henry
## 472	Van Impe, Mr. Jean Baptiste
## 473	Johnson, Mr. Alfred
## 474	Duff Gordon, Sir. Cosmo Edmund ("Mr Morgan")
## 475	Jacobsohn, Mrs. Sidney Samuel (Amy Frances Christy)
## 476	Torber, Mr. Ernst William
## 477	Homer, Mr. Harry ("Mr E Haven")
## 478	Lindell, Mr. Edvard Bengtsson
## 479	Karaic, Mr. Milan
## 480	Daniel, Mr. Robert Williams
## 481	Laroche, Mrs. Joseph (Juliette Marie Louise Lafargue)
## 482	Shutes, Miss. Elizabeth W
## 483	Andersson, Mrs. Anders Johan (Alfrida Konstantia Brogren)
## 484	Brocklebank, Mr. William Alfred
## 485	Herman, Miss. Alice
## 486	Danbom, Mr. Ernst Gilbert
## 487	Lobb, Mrs. William Arthur (Cordelia K Stanlick)
## 488	Becker, Miss. Marion Louise
## 489	Gavey, Mr. Lawrence
## 490	Yasbeck, Mr. Antoni
## 491	Kimball, Mr. Edwin Nelson Jr
## 492	Nakid, Mr. Sahid
## 493	Hansen, Mr. Henry Damsgaard
## 494	Bowen, Mr. David John "Dai"
## 495	Sutton, Mr. Frederick
## 496	Kirkland, Rev. Charles Leonard
## 497	Longley, Miss. Gretchen Fiske
## 498	Bostandyeff, Mr. Guentcho
## 499	Barkworth, Mr. Algernon Henry Wilson
## 500	Lundahl, Mr. Johan Svensson
## 501	Stahelin-Maeglin, Dr. Max
## 502	Skoog, Miss. Mabel
## 503	Davis, Miss. Mary
## 504	Leinonen, Mr. Antti Gustaf
## 505	Collyer, Mr. Harvey
## 506	Panula, Mrs. Juha (Maria Emilia Ojala)
## 507	Jensen, Mr. Hans Peder
## 508	Sagesser, Mlle. Emma
## 509	Skoog, Miss. Margit Elizabeth
## 510	Baclini, Miss. Eugenie
## 511	Harper, Mr. Henry Sleeper
## 512	Cor, Mr. Liudevit
## 513	Simonius-Blumer, Col. Oberst Alfons
## 514	Stanley, Miss. Amy Zillah Elsie
## 515	Doling, Miss. Elsie
## 516	Kalvik, Mr. Johannes Halvorsen



## 517 Hegarty, Miss. Hanora "Nora"  
 ## 518 Hickman, Mr. Leonard Mark  
 ## 519 Bourke, Mrs. John (Catherine)  
 ## 520 Eitemiller, Mr. George Floyd  
 ## 521 Newell, Mr. Arthur Webster  
 ## 522 Frauenthal, Dr. Henry William  
 ## 523 Badt, Mr. Mohamed  
 ## 524 Colley, Mr. Edward Pomeroy  
 ## 525 Coleff, Mr. Peju  
 ## 526 Lindqvist, Mr. Eino William  
 ## 527 Hickman, Mr. Lewis  
 ## 528 Butler, Mr. Reginald Fenton  
 ## 529 Cook, Mr. Jacob  
 ## 530 Brown, Mrs. Thomas William Solomon (Elizabeth Catherine Ford)  
 ## 531 Davidson, Mr. Thornton  
 ## 532 Mitchell, Mr. Henry Michael  
 ## 533 Wilhelms, Mr. Charles  
 ## 534 Edvardsson, Mr. Gustaf Hjalmar  
 ## 535 Sawyer, Mr. Frederick Charles  
 ## 536 Turja, Miss. Anna Sofia  
 ## 537 Goodwin, Mrs. Frederick (Augusta Tyler)  
 ## 538 Cardeza, Mr. Thomas Drake Martinez  
 ## 539 Hassab, Mr. Hammad  
 ## 540 Olsvigen, Mr. Thor Anderson  
 ## 541 Goodwin, Mr. Charles Edward  
 ## 542 Brown, Mr. Thomas William Solomon  
 ## 543 Laroche, Mr. Joseph Philippe Lemercier  
 ## 544 Panula, Mr. Jaako Arnold  
 ## 545 Dakic, Mr. Branko  
 ## 546 Fischer, Mr. Eberhard Thelander  
 ## 547 Madill, Miss. Georgette Alexandra  
 ## 548 Dick, Mr. Albert Adrian  
 ## 549 Karun, Miss. Manca  
 ## 550 Saad, Mr. Khalil  
 ## 551 Weir, Col. John  
 ## 552 Chapman, Mr. Charles Henry  
 ## 553 Kelly, Mr. James  
 ## 554 Thayer, Mr. John Borland  
 ## 555 Humblen, Mr. Adolf Mathias Nicolai Olsen  
 ## 556 Astor, Mrs. John Jacob (Madeleine Talmadge Force)  
 ## 557 Silverthorne, Mr. Spencer Victor  
 ## 558 Barbara, Miss. Saiide  
 ## 559 Gallagher, Mr. Martin  
 ## 560 Hansen, Mr. Henrik Juul  
 ## 561 Morley, Mr. Henry Samuel ("Mr Henry Marshall")  
 ## 562 Kelly, Mrs. Florence "Fannie"  
 ## 563 Calderhead, Mr. Edward Pennington  
 ## 564 Cleaver, Miss. Alice  
 ## 565 Mayne, Mlle. Berthe Antonine ("Mrs de Villiers")  
 ## 566 Taylor, Mr. Elmer Zebley  
 ## 567 Larsson, Mr. August Viktor  
 ## 568 Greenberg, Mr. Samuel  
 ## 569 Soholt, Mr. Peter Andreas Lauritz Andersen  
 ## 570 Endres, Miss. Caroline Louise

## 571	Troutt, Miss. Edwina Celia "Winnie"
## 572	Johnson, Mr. Malkolm Joackim
## 573	Harper, Miss. Annie Jessie "Nina"
## 574	Jensen, Mr. Svend Lauritz
## 575	Gillespie, Mr. William Henry
## 576	Hodges, Mr. Henry Price
## 577	Chambers, Mr. Norman Campbell
## 578	Oreskovic, Mr. Luka
## 579	Renouf, Mrs. Peter Henry (Lillian Jefferys)
## 580	Bryhl, Mr. Kurt Arnold Gottfrid
## 581	Ilmakangas, Miss. Pieta Sofia
## 582	Allen, Miss. Elisabeth Walton
## 583	Hassan, Mr. Houssein G N
## 584	Berriman, Mr. William John
## 585	Troupiansky, Mr. Moses Aaron
## 586	Williams, Mr. Leslie
## 587	Ford, Mrs. Edward (Margaret Ann Watson)
## 588	Lesurer, Mr. Gustave J
## 589	Cavendish, Mr. Tyrell William
## 590	Ryerson, Miss. Susan Parker "Suzette"
## 591	McNamee, Mr. Neal
## 592	Stranden, Mr. Juho
## 593	Crosby, Capt. Edward Gifford
## 594	Abbott, Mr. Rossmore Edward
## 595	Sinkkonen, Miss. Anna
## 596	Marvin, Mr. Daniel Warner
## 597	Connaghton, Mr. Michael
## 598	Wells, Miss. Joan
## 599	Moor, Master. Meier
## 600	Vande Velde, Mr. Johannes Joseph
## 601	Jonkoff, Mr. Lelio
## 602	Herman, Mrs. Samuel (Jane Laver)
## 603	Hamalainen, Master. Viljo
## 604	Carlsson, Mr. August Sigfrid
## 605	Bailey, Mr. Percy Andrew
## 606	Theobald, Mr. Thomas Leonard
## 607	Roths, the Countess. of (Lucy Noel Martha Dyer-Edwards)
## 608	Nirva, Mr. Iisakki Antino Aijo
## 609	Barah, Mr. Hanna Assi
## 610	Carter, Mrs. William Ernest (Lucile Polk)
## 611	Eklund, Mr. Hans Linus
## 612	Hogeboom, Mrs. John C (Anna Andrews)
## 613	Mangan, Miss. Mary
## 614	Gronnestad, Mr. Daniel Danielsen
## 615	Lievens, Mr. Rene Aime
## 616	Jensen, Mr. Niels Peder
## 617	Mack, Mrs. (Mary)
## 618	Hocking, Mrs. Elizabeth (Eliza Needs)
## 619	Myhrman, Mr. Pehr Fabian Oliver Malkolm
## 620	Emanuel, Miss. Virginia Ethel
## 621	Robert, Mrs. Edward Scott (Elisabeth Walton McMillan)
## 622	Ayoub, Miss. Banoura
## 623	Dick, Mrs. Albert Adrian (Vera Gillespie)
## 624	Long, Mr. Milton Clyde

## 625	Ali, Mr. William
## 626	Harmer, Mr. Abraham (David Lishin)
## 627	Sjoblom, Miss. Anna Sofia
## 628	Rice, Master. George Hugh
## 629	Dean, Master. Bertram Vere
## 630	Guggenheim, Mr. Benjamin
## 631	Gaskell, Mr. Alfred
## 632	Dantcheff, Mr. Ristiu
## 633	Otter, Mr. Richard
## 634	Leader, Dr. Alice (Farnham)
## 635	Osman, Mrs. Mara
## 636	Ibrahim Shawah, Mr. Yousseff
## 637	Van Impe, Mrs. Jean Baptiste (Rosalie Paula Govaert)
## 638	Ponesell, Mr. Martin
## 639	Collyer, Mrs. Harvey (Charlotte Annie Tate)
## 640	Carter, Master. William Thornton II
## 641	Thomas, Master. Assad Alexander
## 642	Hedman, Mr. Oskar Arvid
## 643	Johansson, Mr. Karl Johan
## 644	Andrews, Mr. Thomas Jr
## 645	Pettersson, Miss. Ellen Natalia
## 646	Meyer, Mr. August
## 647	Chambers, Mrs. Norman Campbell (Bertha Griggs)
## 648	Alexander, Mr. William
## 649	Lester, Mr. James
## 650	Slemen, Mr. Richard James
## 651	Andersson, Miss. Ebba Iris Alfrida
## 652	Tomlin, Mr. Ernest Portage
## 653	Heininen, Miss. Wendla Maria
## 654	Mallet, Mr. Albert
## 655	Holm, Mr. John Fredrik Alexander
## 656	Skoog, Master. Karl Thorsten
## 657	Hays, Mrs. Charles Melville (Clara Jennings Gregg)
## 658	Lulic, Mr. Nikola
## 659	Reuchlin, Jonkheer. John George
## 660	Moor, Mrs. (Beila)
## 661	Panula, Master. Urho Abraham
## 662	Mallet, Master. Andre
## 663	Stone, Mrs. George Nelson (Martha Evelyn)
## 664	Yasbeck, Mrs. Antoni (Selini Alexander)
## 665	Richards, Master. George Sibley
## 666	Augustsson, Mr. Albert
## 667	Allum, Mr. Owen George
## 668	Compton, Miss. Sara Rebecca
## 669	Pasic, Mr. Jakob
## 670	Chip, Mr. Chang
## 671	Alhomaki, Mr. Ilmari Rudolf
## 672	Mudd, Mr. Thomas Charles
## 673	Serepeca, Miss. Augusta
## 674	Lemberopolous, Mr. Peter L
## 675	Culumovic, Mr. Jeso
## 676	Abbing, Mr. Anthony
## 677	Markoff, Mr. Marin
## 678	Harper, Rev. John

## 679 Andersson, Master. Sigvard Harald Elias  
 ## 680 Svensson, Mr. Johan  
 ## 681 Boulos, Miss. Nourelain  
 ## 682 Lines, Miss. Mary Conover  
 ## 683 Carter, Mrs. Ernest Courtenay (Lilian Hughes)  
 ## 684 Aks, Mrs. Sam (Leah Rosen)  
 ## 685 Wick, Mrs. George Dennick (Mary Hitchcock)  
 ## 686 Daly, Mr. Peter Denis  
 ## 687 Baclini, Mrs. Solomon (Latifa Qurban)  
 ## 688 Hansen, Mr. Claus Peter  
 ## 689 Giles, Mr. Frederick Edward  
 ## 690 Swift, Mrs. Frederick Joel (Margaret Welles Barron)  
 ## 691 Gill, Mr. John William  
 ## 692 Bystrom, Mrs. (Karolina)  
 ## 693 Duran y More, Miss. Asuncion  
 ## 694 Roebling, Mr. Washington Augustus II  
 ## 695 Johnson, Master. Harold Theodor  
 ## 696 Balkic, Mr. Cerin  
 ## 697 Beckwith, Mrs. Richard Leonard (Sallie Monypeny)  
 ## 698 Carlsson, Mr. Frans Olof  
 ## 699 Vander Cruyssen, Mr. Victor  
 ## 700 Abelson, Mrs. Samuel (Hannah Wozosky)  
 ## 701 Najib, Miss. Adele Kiamie "Jane"  
 ## 702 Gustafsson, Mr. Alfred Ossian  
 ## 703 Petroff, Mr. Nedelio  
 ## 704 Potter, Mrs. Thomas Jr (Lily Alexenia Wilson)  
 ## 705 Shelley, Mrs. William (Imanita Parrish Hall)  
 ## 706 Markun, Mr. Johann  
 ## 707 Dahlberg, Miss. Gerda Ulrika  
 ## 708 Banfield, Mr. Frederick James  
 ## 709 Sutehall, Mr. Henry Jr  
 ## 710 Rice, Mrs. William (Margaret Norton)  
 ## 711 Montvila, Rev. Juozas  
 ## 712 Graham, Miss. Margaret Edith  
 ## 713 Behr, Mr. Karl Howell  
 ## 714 Dooley, Mr. Patrick

##	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin
## 1	male	22.00	1	0	A/5 21171	7.2500	
## 2	female	38.00	1	0	PC 17599	71.2833	C85
## 3	female	26.00	0	0	STON/O2. 3101282	7.9250	
## 4	female	35.00	1	0	113803	53.1000	C123
## 5	male	35.00	0	0	373450	8.0500	
## 6	male	54.00	0	0	17463	51.8625	E46
## 7	male	2.00	3	1	349909	21.0750	
## 8	female	27.00	0	2	347742	11.1333	
## 9	female	14.00	1	0	237736	30.0708	
## 10	female	4.00	1	1	PP 9549	16.7000	G6
## 11	female	58.00	0	0	113783	26.5500	C103
## 12	male	20.00	0	0	A/5. 2151	8.0500	
## 13	male	39.00	1	5	347082	31.2750	
## 14	female	14.00	0	0	350406	7.8542	
## 15	female	55.00	0	0	248706	16.0000	
## 16	male	2.00	4	1	382652	29.1250	
## 17	female	31.00	1	0	345763	18.0000	

## 18	male	35.00	0	0	239865	26.0000	
## 19	male	34.00	0	0	248698	13.0000	D56
## 20	female	15.00	0	0	330923	8.0292	
## 21	male	28.00	0	0	113788	35.5000	A6
## 22	female	8.00	3	1	349909	21.0750	
## 23	female	38.00	1	5	347077	31.3875	
## 24	male	19.00	3	2	19950	263.0000	C23 C25 C27
## 25	male	40.00	0	0	PC 17601	27.7208	
## 26	male	66.00	0	0	C.A. 24579	10.5000	
## 27	male	28.00	1	0	PC 17604	82.1708	
## 28	male	42.00	1	0	113789	52.0000	
## 29	male	21.00	0	0	A./5. 2152	8.0500	
## 30	female	18.00	2	0	345764	18.0000	
## 31	female	14.00	1	0	2651	11.2417	
## 32	female	40.00	1	0	7546	9.4750	
## 33	female	27.00	1	0	11668	21.0000	
## 34	female	3.00	1	2	SC/Paris 2123	41.5792	
## 35	female	19.00	0	0	330958	7.8792	
## 36	female	18.00	1	0	349237	17.8000	
## 37	male	7.00	4	1	3101295	39.6875	
## 38	male	21.00	0	0	A/4. 39886	7.8000	
## 39	female	49.00	1	0	PC 17572	76.7292	D33
## 40	female	29.00	1	0	2926	26.0000	
## 41	male	65.00	0	1	113509	61.9792	B30
## 42	female	21.00	0	0	C.A. 31026	10.5000	
## 43	male	28.50	0	0	2697	7.2292	
## 44	female	5.00	1	2	C.A. 34651	27.7500	
## 45	male	11.00	5	2	CA 2144	46.9000	
## 46	male	22.00	0	0	2669	7.2292	
## 47	female	38.00	0	0	113572	80.0000	B28
## 48	male	45.00	1	0	36973	83.4750	C83
## 49	male	4.00	3	2	347088	27.9000	
## 50	female	29.00	0	0	C.A. 29395	10.5000	F33
## 51	male	19.00	0	0	S.P. 3464	8.1583	
## 52	female	17.00	4	2	3101281	7.9250	
## 53	male	26.00	2	0	315151	8.6625	
## 54	male	32.00	0	0	C.A. 33111	10.5000	
## 55	female	16.00	5	2	CA 2144	46.9000	
## 56	male	21.00	0	0	S.O.C. 14879	73.5000	
## 57	male	26.00	1	0	2680	14.4542	
## 58	male	32.00	0	0	1601	56.4958	
## 59	male	25.00	0	0	348123	7.6500	F G73
## 60	male	0.83	0	2	248738	29.0000	
## 61	female	30.00	0	0	364516	12.4750	
## 62	male	22.00	0	0	345767	9.0000	
## 63	male	29.00	0	0	345779	9.5000	
## 64	male	28.00	0	0	113059	47.1000	
## 65	female	17.00	0	0	S0/C 14885	10.5000	
## 66	female	33.00	3	0	3101278	15.8500	
## 67	male	16.00	1	3	W./C. 6608	34.3750	
## 68	female	23.00	3	2	19950	263.0000	C23 C25 C27
## 69	male	24.00	0	0	343275	8.0500	
## 70	male	29.00	0	0	343276	8.0500	
## 71	male	20.00	0	0	347466	7.8542	

## 72	male	46.00	1	0	W.E.P. 5734	61.1750	E31
## 73	male	26.00	1	2	C.A. 2315	20.5750	
## 74	male	59.00	0	0	364500	7.2500	
## 75	male	71.00	0	0	PC 17754	34.6542	A5
## 76	male	23.00	0	1	PC 17759	63.3583	D10 D12
## 77	female	34.00	0	1	231919	23.0000	
## 78	male	34.00	1	0	244367	26.0000	
## 79	female	28.00	0	0	349245	7.8958	
## 80	male	21.00	0	1	35281	77.2875	D26
## 81	male	33.00	0	0	7540	8.6542	
## 82	male	37.00	2	0	3101276	7.9250	
## 83	male	28.00	0	0	349207	7.8958	
## 84	female	21.00	0	0	343120	7.6500	
## 85	male	38.00	0	0	349249	7.8958	
## 86	male	47.00	0	0	110465	52.0000	C110
## 87	female	14.50	1	0	2665	14.4542	
## 88	male	22.00	0	0	324669	8.0500	
## 89	female	20.00	1	0	4136	9.8250	
## 90	female	17.00	0	0	2627	14.4583	
## 91	male	21.00	0	0	STON/O 2. 3101294	7.9250	
## 92	male	70.50	0	0	370369	7.7500	
## 93	male	29.00	1	0	11668	21.0000	
## 94	male	24.00	0	1	PC 17558	247.5208	B58 B60
## 95	female	2.00	4	2	347082	31.2750	
## 96	male	21.00	2	0	S.O.C. 14879	73.5000	
## 97	male	32.50	1	0	237736	30.0708	
## 98	female	32.50	0	0	27267	13.0000	E101
## 99	male	54.00	0	1	35281	77.2875	D26
## 100	male	12.00	1	0	2651	11.2417	
## 101	male	24.00	0	0	C 17369	7.1417	
## 102	male	45.00	0	0	347061	6.9750	
## 103	male	33.00	0	0	349241	7.8958	
## 104	male	20.00	0	0	SOTON/O.Q. 3101307	7.0500	
## 105	female	47.00	1	0	A/5. 3337	14.5000	
## 106	female	29.00	1	0	228414	26.0000	
## 107	male	25.00	0	0	C.A. 29178	13.0000	
## 108	male	23.00	0	0	SC/PARIS 2133	15.0458	
## 109	female	19.00	0	2	11752	26.2833	D47
## 110	male	37.00	1	0	113803	53.1000	C123
## 111	male	16.00	0	0	7534	9.2167	
## 112	male	24.00	0	0	PC 17593	79.2000	B86
## 113	female	22.00	0	0	347081	7.7500	
## 114	female	24.00	1	0	STON/O2. 3101279	15.8500	
## 115	male	19.00	0	0	365222	6.7500	
## 116	male	18.00	0	0	231945	11.5000	
## 117	male	19.00	1	1	C.A. 33112	36.7500	
## 118	male	27.00	0	0	350043	7.7958	
## 119	female	9.00	2	2	W./C. 6608	34.3750	
## 120	male	36.50	0	2	230080	26.0000	F2
## 121	male	42.00	0	0	244310	13.0000	
## 122	male	51.00	0	0	S.O.P. 1166	12.5250	
## 123	female	22.00	1	0	113776	66.6000	C2
## 124	male	55.50	0	0	A.5. 11206	8.0500	
## 125	male	40.50	0	2	A/5. 851	14.5000	

## 126	male	51.00	0	1	PC 17597	61.3792	
## 127	female	16.00	0	0	35851	7.7333	
## 128	male	30.00	0	0	SOTON/OQ 392090	8.0500	
## 129	male	44.00	0	1	371362	16.1000	
## 130	female	40.00	0	0	C.A. 33595	15.7500	
## 131	male	26.00	0	0	347068	7.7750	
## 132	male	17.00	0	0	315093	8.6625	
## 133	male	1.00	4	1	3101295	39.6875	
## 134	male	9.00	0	2	363291	20.5250	
## 135	female	45.00	1	4	347088	27.9000	
## 136	male	28.00	0	0	1601	56.4958	
## 137	male	61.00	0	0	111240	33.5000	B19
## 138	male	4.00	4	1	382652	29.1250	
## 139	female	1.00	1	1	347742	11.1333	
## 140	male	21.00	0	0	STON/O 2. 3101280	7.9250	
## 141	male	56.00	0	0	17764	30.6958	A7
## 142	male	18.00	1	1	350404	7.8542	
## 143	female	50.00	0	0	PC 17595	28.7125	C49
## 144	male	30.00	0	0	250653	13.0000	
## 145	male	36.00	0	0	LINE	0.0000	
## 146	male	9.00	4	2	347077	31.3875	
## 147	male	1.00	2	1	230136	39.0000	F4
## 148	female	4.00	0	2	315153	22.0250	
## 149	male	45.00	0	0	111428	26.5500	
## 150	male	40.00	1	1	364849	15.5000	
## 151	male	36.00	0	0	349247	7.8958	
## 152	female	32.00	0	0	234604	13.0000	
## 153	male	19.00	0	0	28424	13.0000	
## 154	female	19.00	1	0	350046	7.8542	
## 155	male	3.00	1	1	230080	26.0000	F2
## 156	female	44.00	0	0	PC 17610	27.7208	B4
## 157	female	58.00	0	0	PC 17569	146.5208	B80
## 158	male	42.00	0	1	4579	8.4042	
## 159	female	24.00	0	0	248747	13.0000	
## 160	male	28.00	0	0	345770	9.5000	
## 161	male	34.00	0	0	3101264	6.4958	
## 162	male	45.50	0	0	2628	7.2250	
## 163	male	18.00	0	0	A/5 3540	8.0500	
## 164	female	2.00	0	1	347054	10.4625	G6
## 165	male	32.00	1	0	3101278	15.8500	
## 166	male	26.00	0	0	2699	18.7875	
## 167	female	16.00	0	0	367231	7.7500	
## 168	male	40.00	0	0	112277	31.0000	A31
## 169	male	24.00	0	0	SOTON/O.Q. 3101311	7.0500	
## 170	female	35.00	0	0	F.C.C. 13528	21.0000	
## 171	male	22.00	0	0	A/5 21174	7.2500	
## 172	male	30.00	0	0	250646	13.0000	
## 173	female	31.00	1	0	35273	113.2750	D36
## 174	female	27.00	0	0	STON/O2. 3101283	7.9250	
## 175	male	42.00	1	0	243847	27.0000	
## 176	female	32.00	0	0	11813	76.2917	D15
## 177	male	30.00	0	0	W/C 14208	10.5000	
## 178	male	16.00	0	0	SOTON/OQ 392089	8.0500	
## 179	male	27.00	0	0	220367	13.0000	

## 180	male	51.00	0	0	21440	8.0500	
## 181	male	38.00	1	0	19943	90.0000	C93
## 182	male	22.00	0	0	PP 4348	9.3500	
## 183	male	19.00	0	0	SW/PP 751	10.5000	
## 184	male	20.50	0	0	A/5 21173	7.2500	
## 185	male	18.00	0	0	236171	13.0000	
## 186	female	35.00	1	0	36973	83.4750	C83
## 187	male	29.00	0	0	347067	7.7750	
## 188	male	59.00	0	0	237442	13.5000	
## 189	female	5.00	4	2	347077	31.3875	
## 190	male	24.00	0	0	C.A. 29566	10.5000	
## 191	male	44.00	1	0	26707	26.0000	
## 192	female	8.00	0	2	C.A. 31921	26.2500	
## 193	male	19.00	0	0	28665	10.5000	
## 194	male	33.00	0	0	SC0/W 1585	12.2750	
## 195	male	29.00	0	0	W./C. 14263	10.5000	
## 196	male	22.00	0	0	STON/O 2. 3101275	7.1250	
## 197	male	30.00	0	0	2694	7.2250	
## 198	male	44.00	2	0	19928	90.0000	C78
## 199	female	25.00	0	0	347071	7.7750	
## 200	female	24.00	0	2	250649	14.5000	
## 201	male	37.00	1	1	11751	52.5542	D35
## 202	male	54.00	1	0	244252	26.0000	
## 203	female	29.00	1	1	347054	10.4625	G6
## 204	male	62.00	0	0	113514	26.5500	C87
## 205	male	30.00	1	0	A/5. 3336	16.1000	
## 206	female	41.00	0	2	370129	20.2125	
## 207	female	29.00	0	2	2650	15.2458	
## 208	female	30.00	0	0	110152	86.5000	B77
## 209	female	35.00	0	0	PC 17755	512.3292	
## 210	female	50.00	0	1	230433	26.0000	
## 211	male	3.00	4	2	347077	31.3875	
## 212	male	52.00	1	1	110413	79.6500	E67
## 213	male	40.00	0	0	112059	0.0000	B94
## 214	male	36.00	0	0	C.A. 17248	10.5000	
## 215	male	16.00	4	1	3101295	39.6875	
## 216	male	25.00	1	0	347083	7.7750	
## 217	female	58.00	0	1	PC 17582	153.4625	C125
## 218	female	35.00	0	0	PC 17760	135.6333	C99
## 219	male	25.00	0	0	LINE	0.0000	
## 220	female	41.00	0	1	250644	19.5000	
## 221	male	37.00	0	1	PC 17596	29.7000	C118
## 222	female	63.00	1	0	13502	77.9583	D7
## 223	female	45.00	0	0	347073	7.7500	
## 224	male	7.00	4	1	382652	29.1250	
## 225	female	35.00	1	1	C.A. 2673	20.2500	
## 226	male	65.00	0	0	336439	7.7500	
## 227	male	28.00	0	0	347464	7.8542	
## 228	male	16.00	0	0	345778	9.5000	
## 229	male	19.00	0	0	A/5. 10482	8.0500	
## 230	male	33.00	0	0	349239	8.6625	
## 231	male	30.00	0	0	345774	9.5000	
## 232	male	22.00	0	0	349206	7.8958	
## 233	male	42.00	0	0	237798	13.0000	



## 234 female	22.00	0	0	370373	7.7500	
## 235 female	26.00	0	0	19877	78.8500	
## 236 female	19.00	1	0	11967	91.0792	B49
## 237 male	36.00	0	0	SC/Paris 2163	12.8750	D
## 238 female	24.00	0	0	349236	8.8500	
## 239 male	24.00	0	0	349233	7.8958	
## 240 male	23.50	0	0	2693	7.2292	
## 241 female	2.00	1	2	113781	151.5500	C22 C26
## 242 female	50.00	0	1	PC 17558	247.5208	B58 B60
## 243 male	19.00	0	0	LINE	0.0000	
## 244 male	0.92	1	2	113781	151.5500	C22 C26
## 245 female	17.00	1	0	PC 17758	108.9000	C65
## 246 male	30.00	1	0	P/PP 3381	24.0000	
## 247 female	30.00	0	0	PC 17485	56.9292	E36
## 248 female	24.00	0	0	11767	83.1583	C54
## 249 female	18.00	2	2	PC 17608	262.3750	B57 B59 B63 B66
## 250 female	26.00	1	1	250651	26.0000	
## 251 male	28.00	0	0	349243	7.8958	
## 252 male	43.00	1	1	F.C.C. 13529	26.2500	
## 253 female	26.00	0	0	347470	7.8542	
## 254 female	24.00	1	0	244367	26.0000	
## 255 male	54.00	0	0	29011	14.0000	
## 256 female	31.00	0	2	36928	164.8667	C7
## 257 female	40.00	1	1	16966	134.5000	E34
## 258 male	22.00	0	0	A/5 21172	7.2500	
## 259 male	27.00	0	0	349219	7.8958	
## 260 female	30.00	0	0	234818	12.3500	
## 261 female	22.00	1	1	248738	29.0000	
## 262 female	36.00	0	0	PC 17760	135.6333	C32
## 263 male	61.00	0	0	345364	6.2375	
## 264 female	36.00	0	0	28551	13.0000	D
## 265 female	31.00	1	1	363291	20.5250	
## 266 female	16.00	0	1	111361	57.9792	B18
## 267 male	45.50	0	0	113043	28.5000	C124
## 268 male	38.00	0	1	PC 17582	153.4625	C91
## 269 male	16.00	2	0	345764	18.0000	
## 270 male	29.00	1	0	113776	66.6000	C2
## 271 female	41.00	0	0	16966	134.5000	E40
## 272 male	45.00	0	0	7598	8.0500	
## 273 male	45.00	0	0	113784	35.5000	T
## 274 male	2.00	1	1	230080	26.0000	F2
## 275 female	24.00	3	2	19950	263.0000	C23 C25 C27
## 276 male	28.00	0	0	248740	13.0000	
## 277 male	25.00	0	0	244361	13.0000	
## 278 male	36.00	0	0	229236	13.0000	
## 279 female	24.00	0	0	248733	13.0000	F33
## 280 female	40.00	0	0	31418	13.0000	
## 281 male	3.00	1	1	C.A. 37671	15.9000	
## 282 male	42.00	0	0	315088	8.6625	
## 283 male	23.00	0	0	7267	9.2250	
## 284 male	15.00	1	1	2695	7.2292	
## 285 male	25.00	1	0	349237	17.8000	
## 286 male	28.00	0	0	345783	9.5000	
## 287 female	22.00	0	1	113505	55.0000	E33

## 288 female	38.00	0	0	237671	13.0000	
## 289 male	40.00	1	4	347088	27.9000	
## 290 male	29.00	1	0	SC/PARIS 2167	27.7208	
## 291 female	45.00	0	1	2691	14.4542	
## 292 male	35.00	0	0	SOTON/O.Q. 3101310	7.0500	
## 293 male	30.00	0	0	C 7076	7.2500	
## 294 female	60.00	1	0	110813	75.2500	D37
## 295 female	24.00	0	0	PC 17477	69.3000	B35
## 296 male	25.00	1	0	11765	55.4417	E50
## 297 male	18.00	1	0	3101267	6.4958	
## 298 male	19.00	0	0	323951	8.0500	
## 299 male	22.00	0	0	PC 17760	135.6333	
## 300 female	3.00	3	1	349909	21.0750	
## 301 female	22.00	0	0	C 7077	7.2500	
## 302 male	27.00	0	2	113503	211.5000	C82
## 303 male	20.00	0	0	2648	4.0125	
## 304 male	19.00	0	0	347069	7.7750	
## 305 female	42.00	0	0	PC 17757	227.5250	
## 306 female	1.00	0	2	2653	15.7417	
## 307 male	32.00	0	0	STON/O 2. 3101293	7.9250	
## 308 female	35.00	1	0	113789	52.0000	
## 309 male	18.00	0	0	S.O.C. 14879	73.5000	
## 310 male	1.00	5	2	CA 2144	46.9000	
## 311 female	36.00	0	0	27849	13.0000	
## 312 female	17.00	0	0	SC 1748	12.0000	
## 313 male	36.00	1	2	113760	120.0000	B96 B98
## 314 male	21.00	0	0	350034	7.7958	
## 315 male	28.00	2	0	3101277	7.9250	
## 316 female	23.00	1	0	35273	113.2750	D36
## 317 female	24.00	0	2	PP 9549	16.7000	G6
## 318 male	22.00	0	0	350052	7.7958	
## 319 female	31.00	0	0	350407	7.8542	
## 320 male	46.00	0	0	28403	26.0000	
## 321 male	23.00	0	0	244278	10.5000	
## 322 female	28.00	0	0	240929	12.6500	
## 323 male	39.00	0	0	STON/O 2. 3101289	7.9250	
## 324 male	26.00	0	0	341826	8.0500	
## 325 female	21.00	1	0	4137	9.8250	
## 326 male	28.00	1	0	STON/O2. 3101279	15.8500	
## 327 female	20.00	0	0	315096	8.6625	
## 328 male	34.00	1	0	28664	21.0000	
## 329 male	51.00	0	0	347064	7.7500	
## 330 male	3.00	1	1	29106	18.7500	
## 331 male	21.00	0	0	312992	7.7750	
## 332 female	33.00	1	0	19928	90.0000	C78
## 333 male	44.00	0	0	STON/O 2. 3101269	7.9250	
## 334 female	34.00	1	1	28220	32.5000	
## 335 female	18.00	0	2	250652	13.0000	
## 336 male	30.00	0	0	28228	13.0000	
## 337 female	10.00	0	2	345773	24.1500	
## 338 male	21.00	0	0	A/5. 13032	7.7333	
## 339 male	29.00	0	0	315082	7.8750	
## 340 female	28.00	1	1	347080	14.4000	
## 341 male	18.00	1	1	370129	20.2125	

## 342 female	28.00	1	0	2003	26.0000	
## 343 female	19.00	0	0	250655	26.0000	
## 344 male	32.00	0	0	SOTON/O.Q. 392078	8.0500	E10
## 345 male	28.00	0	0	110564	26.5500	C52
## 346 female	42.00	1	0	SC/AH 3085	26.0000	
## 347 male	17.00	0	0	STON/O 2. 3101274	7.1250	
## 348 male	50.00	1	0	13507	55.9000	E44
## 349 female	14.00	1	2	113760	120.0000	B96 B98
## 350 female	21.00	2	2	W./C. 6608	34.3750	
## 351 female	24.00	2	3	29106	18.7500	
## 352 male	64.00	1	4	19950	263.0000	C23 C25 C27
## 353 male	31.00	0	0	C.A. 18723	10.5000	
## 354 female	45.00	1	1	F.C.C. 13529	26.2500	
## 355 male	20.00	0	0	345769	9.5000	
## 356 male	25.00	1	0	347076	7.7750	
## 357 female	28.00	0	0	230434	13.0000	
## 358 male	4.00	0	2	33638	81.8583	A34
## 359 female	13.00	0	1	250644	19.5000	
## 360 male	34.00	0	0	113794	26.5500	
## 361 female	5.00	2	1	2666	19.2583	
## 362 male	52.00	0	0	113786	30.5000	C104
## 363 male	36.00	1	2	C.A. 34651	27.7500	
## 364 male	30.00	0	0	113051	27.7500	C111
## 365 male	49.00	1	0	17453	89.1042	C92
## 366 male	29.00	0	0	349240	7.8958	
## 367 male	65.00	0	0	13509	26.5500	E38
## 368 female	50.00	0	0	F.C.C. 13531	10.5000	
## 369 male	48.00	0	0	19952	26.5500	E12
## 370 male	34.00	0	0	364506	8.0500	
## 371 male	47.00	0	0	111320	38.5000	E63
## 372 male	48.00	0	0	234360	13.0000	
## 373 male	38.00	0	0	SOTON/O.Q. 3101306	7.0500	
## 374 male	56.00	0	0	113792	26.5500	
## 375 female	0.75	2	1	2666	19.2583	
## 376 male	38.00	0	0	315089	8.6625	
## 377 female	33.00	1	2	C.A. 34651	27.7500	
## 378 female	23.00	0	0	SC/AH Basle 541	13.7917	D
## 379 female	22.00	0	0	7553	9.8375	
## 380 male	34.00	1	0	31027	21.0000	
## 381 male	29.00	1	0	3460	7.0458	
## 382 male	22.00	0	0	350060	7.5208	
## 383 female	2.00	0	1	3101298	12.2875	
## 384 male	9.00	5	2	CA 2144	46.9000	
## 385 male	50.00	0	0	A/5 3594	8.0500	
## 386 female	63.00	0	0	4134	9.5875	
## 387 male	25.00	1	0	11967	91.0792	B49
## 388 female	35.00	1	0	19943	90.0000	C93
## 389 male	58.00	0	0	11771	29.7000	B37
## 390 male	30.00	0	0	A.5. 18509	8.0500	
## 391 male	9.00	1	1	C.A. 37671	15.9000	
## 392 male	21.00	0	0	SOTON/OQ 3101317	7.2500	
## 393 male	55.00	0	0	113787	30.5000	C30
## 394 male	71.00	0	0	PC 17609	49.5042	
## 395 male	21.00	0	0	A/4 45380	8.0500	

## 396 female	54.00	1	0	36947	78.2667	D20
## 397 female	25.00	1	2	113781	151.5500	C22 C26
## 398 male	24.00	0	0	350035	7.7958	
## 399 male	17.00	0	0	315086	8.6625	
## 400 female	21.00	0	0	364846	7.7500	
## 401 female	37.00	0	0	4135	9.5875	
## 402 female	16.00	0	0	110152	86.5000	B79
## 403 male	18.00	1	0	PC 17758	108.9000	C65
## 404 female	33.00	0	2	26360	26.0000	
## 405 male	28.00	0	0	C 4001	22.5250	
## 406 male	26.00	0	0	1601	56.4958	
## 407 male	29.00	0	0	382651	7.7500	
## 408 male	36.00	0	0	PC 17473	26.2875	E25
## 409 female	54.00	1	0	PC 17603	59.4000	
## 410 male	24.00	0	0	349209	7.4958	
## 411 male	47.00	0	0	36967	34.0208	D46
## 412 female	34.00	0	0	C.A. 34260	10.5000	F33
## 413 female	36.00	1	0	226875	26.0000	
## 414 male	32.00	0	0	349242	7.8958	
## 415 female	30.00	0	0	12749	93.5000	B73
## 416 male	22.00	0	0	349252	7.8958	
## 417 female	44.00	0	1	111361	57.9792	B18
## 418 male	40.50	0	0	367232	7.7500	
## 419 female	50.00	0	0	W./C. 14258	10.5000	
## 420 male	39.00	0	0	3101296	7.9250	
## 421 male	23.00	2	1	29104	11.5000	
## 422 female	2.00	1	1	26360	26.0000	
## 423 male	17.00	1	1	2690	7.2292	
## 424 female	30.00	0	0	315084	8.6625	
## 425 female	7.00	0	2	F.C.C. 13529	26.2500	
## 426 male	45.00	0	0	113050	26.5500	B38
## 427 female	30.00	0	0	PC 17761	106.4250	
## 428 female	22.00	0	2	13568	49.5000	B39
## 429 female	36.00	0	2	WE/P 5735	71.0000	B22
## 430 female	9.00	4	2	347082	31.2750	
## 431 female	11.00	4	2	347082	31.2750	
## 432 male	32.00	1	0	2908	26.0000	
## 433 male	50.00	1	0	PC 17761	106.4250	C86
## 434 male	64.00	0	0	693	26.0000	
## 435 female	19.00	1	0	2908	26.0000	
## 436 male	33.00	1	1	363291	20.5250	
## 437 male	8.00	1	1	C.A. 33112	36.7500	
## 438 male	17.00	0	2	17421	110.8833	C70
## 439 male	27.00	0	0	244358	26.0000	
## 440 male	22.00	0	0	2620	7.2250	
## 441 female	22.00	0	0	347085	7.7750	
## 442 male	62.00	0	0	113807	26.5500	
## 443 female	48.00	1	0	11755	39.6000	A16
## 444 female	39.00	1	1	110413	79.6500	E67
## 445 female	36.00	1	0	345572	17.4000	
## 446 male	40.00	0	0	349251	7.8958	
## 447 male	28.00	0	0	218629	13.5000	
## 448 male	24.00	2	0	A/4 48871	24.1500	
## 449 male	19.00	0	0	349205	7.8958	

## 450 female	29.00	0	4	349909	21.0750	
## 451 male	32.00	0	0	350417	7.8542	
## 452 male	62.00	0	0	S.W./PP 752	10.5000	
## 453 female	53.00	2	0	11769	51.4792	C101
## 454 male	36.00	0	0	PC 17474	26.3875	E25
## 455 male	16.00	0	0	A/4. 20589	8.0500	
## 456 male	19.00	0	0	358585	14.5000	
## 457 female	34.00	0	0	243880	13.0000	
## 458 female	39.00	1	0	13507	55.9000	E44
## 459 male	32.00	0	0	STON/O 2. 3101286	7.9250	
## 460 female	25.00	1	1	237789	30.0000	
## 461 female	39.00	1	1	17421	110.8833	C68
## 462 male	54.00	0	0	28403	26.0000	
## 463 male	36.00	0	0	13049	40.1250	A10
## 464 female	18.00	0	2	110413	79.6500	E68
## 465 male	47.00	0	0	237565	15.0000	
## 466 male	60.00	1	1	13567	79.2000	B41
## 467 male	22.00	0	0	14973	8.0500	
## 468 male	35.00	0	0	STON/O 2. 3101273	7.1250	
## 469 female	52.00	1	0	36947	78.2667	D20
## 470 male	47.00	0	0	A/5 3902	7.2500	
## 471 male	37.00	1	0	SC/AH 29037	26.0000	
## 472 male	36.00	1	1	345773	24.1500	
## 473 male	49.00	0	0	LINE	0.0000	
## 474 male	49.00	1	0	PC 17485	56.9292	A20
## 475 female	24.00	2	1	243847	27.0000	
## 476 male	44.00	0	0	364511	8.0500	
## 477 male	35.00	0	0	111426	26.5500	
## 478 male	36.00	1	0	349910	15.5500	
## 479 male	30.00	0	0	349246	7.8958	
## 480 male	27.00	0	0	113804	30.5000	
## 481 female	22.00	1	2	SC/Paris 2123	41.5792	
## 482 female	40.00	0	0	PC 17582	153.4625	C125
## 483 female	39.00	1	5	347082	31.2750	
## 484 male	35.00	0	0	364512	8.0500	
## 485 female	24.00	1	2	220845	65.0000	
## 486 male	34.00	1	1	347080	14.4000	
## 487 female	26.00	1	0	A/5. 3336	16.1000	
## 488 female	4.00	2	1	230136	39.0000	F4
## 489 male	26.00	0	0	31028	10.5000	
## 490 male	27.00	1	0	2659	14.4542	
## 491 male	42.00	1	0	11753	52.5542	D19
## 492 male	20.00	1	1	2653	15.7417	
## 493 male	21.00	0	0	350029	7.8542	
## 494 male	21.00	0	0	54636	16.1000	
## 495 male	61.00	0	0	36963	32.3208	D50
## 496 male	57.00	0	0	219533	12.3500	
## 497 female	21.00	0	0	13502	77.9583	D9
## 498 male	26.00	0	0	349224	7.8958	
## 499 male	80.00	0	0	27042	30.0000	A23
## 500 male	51.00	0	0	347743	7.0542	
## 501 male	32.00	0	0	13214	30.5000	B50
## 502 female	9.00	3	2	347088	27.9000	
## 503 female	28.00	0	0	237668	13.0000	

## 504	male	32.00	0	0	STON/O 2.	3101292	7.9250	
## 505	male	31.00	1	1	C.A.	31921	26.2500	
## 506	female	41.00	0	5		3101295	39.6875	
## 507	male	20.00	0	0		350050	7.8542	
## 508	female	24.00	0	0	PC	17477	69.3000	B35
## 509	female	2.00	3	2		347088	27.9000	
## 510	female	0.75	2	1		2666	19.2583	
## 511	male	48.00	1	0	PC	17572	76.7292	D33
## 512	male	19.00	0	0		349231	7.8958	
## 513	male	56.00	0	0		13213	35.5000	A26
## 514	female	23.00	0	0	CA.	2314	7.5500	
## 515	female	18.00	0	1		231919	23.0000	
## 516	male	21.00	0	0		8475	8.4333	
## 517	female	18.00	0	0		365226	6.7500	
## 518	male	24.00	2	0	S.O.C.	14879	73.5000	
## 519	female	32.00	1	1		364849	15.5000	
## 520	male	23.00	0	0		29751	13.0000	
## 521	male	58.00	0	2		35273	113.2750	D48
## 522	male	50.00	2	0	PC	17611	133.6500	
## 523	male	40.00	0	0		2623	7.2250	
## 524	male	47.00	0	0		5727	25.5875	E58
## 525	male	36.00	0	0		349210	7.4958	
## 526	male	20.00	1	0	STON/O 2.	3101285	7.9250	
## 527	male	32.00	2	0	S.O.C.	14879	73.5000	
## 528	male	25.00	0	0		234686	13.0000	
## 529	male	43.00	0	0	A/5	3536	8.0500	
## 530	female	40.00	1	1		29750	39.0000	
## 531	male	31.00	1	0	F.C.	12750	52.0000	B71
## 532	male	70.00	0	0	C.A.	24580	10.5000	
## 533	male	31.00	0	0		244270	13.0000	
## 534	male	18.00	0	0		349912	7.7750	
## 535	male	24.50	0	0		342826	8.0500	
## 536	female	18.00	0	0		4138	9.8417	
## 537	female	43.00	1	6	CA	2144	46.9000	
## 538	male	36.00	0	1	PC	17755	512.3292	B51 B53 B55
## 539	male	27.00	0	0	PC	17572	76.7292	D49
## 540	male	20.00	0	0		6563	9.2250	
## 541	male	14.00	5	2	CA	2144	46.9000	
## 542	male	60.00	1	1		29750	39.0000	
## 543	male	25.00	1	2	SC/Paris	2123	41.5792	
## 544	male	14.00	4	1		3101295	39.6875	
## 545	male	19.00	0	0		349228	10.1708	
## 546	male	18.00	0	0		350036	7.7958	
## 547	female	15.00	0	1		24160	211.3375	B5
## 548	male	31.00	1	0		17474	57.0000	B20
## 549	female	4.00	0	1		349256	13.4167	
## 550	male	25.00	0	0		2672	7.2250	
## 551	male	60.00	0	0		113800	26.5500	
## 552	male	52.00	0	0		248731	13.5000	
## 553	male	44.00	0	0		363592	8.0500	
## 554	male	49.00	1	1		17421	110.8833	C68
## 555	male	42.00	0	0		348121	7.6500	F G63
## 556	female	18.00	1	0	PC	17757	227.5250	C62 C64
## 557	male	35.00	0	0	PC	17475	26.2875	E24

## 558	female	18.00	0	1	2691	14.4542	
## 559	male	25.00	0	0	36864	7.7417	
## 560	male	26.00	1	0	350025	7.8542	
## 561	male	39.00	0	0	250655	26.0000	
## 562	female	45.00	0	0	223596	13.5000	
## 563	male	42.00	0	0	PC 17476	26.2875	E24
## 564	female	22.00	0	0	113781	151.5500	
## 565	female	24.00	0	0	PC 17482	49.5042	C90
## 566	male	48.00	1	0	19996	52.0000	C126
## 567	male	29.00	0	0	7545	9.4833	
## 568	male	52.00	0	0	250647	13.0000	
## 569	male	19.00	0	0	348124	7.6500	F G73
## 570	female	38.00	0	0	PC 17757	227.5250	C45
## 571	female	27.00	0	0	34218	10.5000	E101
## 572	male	33.00	0	0	347062	7.7750	
## 573	female	6.00	0	1	248727	33.0000	
## 574	male	17.00	1	0	350048	7.0542	
## 575	male	34.00	0	0	12233	13.0000	
## 576	male	50.00	0	0	250643	13.0000	
## 577	male	27.00	1	0	113806	53.1000	E8
## 578	male	20.00	0	0	315094	8.6625	
## 579	female	30.00	3	0	31027	21.0000	
## 580	male	25.00	1	0	236853	26.0000	
## 581	female	25.00	1	0	STON/O2. 3101271	7.9250	
## 582	female	29.00	0	0	24160	211.3375	B5
## 583	male	11.00	0	0	2699	18.7875	
## 584	male	23.00	0	0	28425	13.0000	
## 585	male	23.00	0	0	233639	13.0000	
## 586	male	28.50	0	0	54636	16.1000	
## 587	female	48.00	1	3	W./C. 6608	34.3750	
## 588	male	35.00	0	0	PC 17755	512.3292	B101
## 589	male	36.00	1	0	19877	78.8500	C46
## 590	female	21.00	2	2	PC 17608	262.3750	B57 B59 B63 B66
## 591	male	24.00	1	0	376566	16.1000	
## 592	male	31.00	0	0	STON/O 2. 3101288	7.9250	
## 593	male	70.00	1	1	WE/P 5735	71.0000	B22
## 594	male	16.00	1	1	C.A. 2673	20.2500	
## 595	female	30.00	0	0	250648	13.0000	
## 596	male	19.00	1	0	113773	53.1000	D30
## 597	male	31.00	0	0	335097	7.7500	
## 598	female	4.00	1	1	29103	23.0000	
## 599	male	6.00	0	1	392096	12.4750	E121
## 600	male	33.00	0	0	345780	9.5000	
## 601	male	23.00	0	0	349204	7.8958	
## 602	female	48.00	1	2	220845	65.0000	
## 603	male	0.67	1	1	250649	14.5000	
## 604	male	28.00	0	0	350042	7.7958	
## 605	male	18.00	0	0	29108	11.5000	
## 606	male	34.00	0	0	363294	8.0500	
## 607	female	33.00	0	0	110152	86.5000	B77
## 608	male	41.00	0	0	SOTON/O2 3101272	7.1250	
## 609	male	20.00	0	0	2663	7.2292	
## 610	female	36.00	1	2	113760	120.0000	B96 B98
## 611	male	16.00	0	0	347074	7.7750	

## 612 female	51.00	1	0	13502	77.9583	D11
## 613 female	30.50	0	0	364850	7.7500	
## 614 male	32.00	0	0	8471	8.3625	
## 615 male	24.00	0	0	345781	9.5000	
## 616 male	48.00	0	0	350047	7.8542	
## 617 female	57.00	0	0	S.O./P.P. 3	10.5000	E77
## 618 female	54.00	1	3	29105	23.0000	
## 619 male	18.00	0	0	347078	7.7500	
## 620 female	5.00	0	0	364516	12.4750	
## 621 female	43.00	0	1	24160	211.3375	B3
## 622 female	13.00	0	0	2687	7.2292	
## 623 female	17.00	1	0	17474	57.0000	B20
## 624 male	29.00	0	0	113501	30.0000	D6
## 625 male	25.00	0	0	SOTON/O.Q. 3101312	7.0500	
## 626 male	25.00	0	0	374887	7.2500	
## 627 female	18.00	0	0	3101265	7.4958	
## 628 male	8.00	4	1	382652	29.1250	
## 629 male	1.00	1	2	C.A. 2315	20.5750	
## 630 male	46.00	0	0	PC 17593	79.2000	B82 B84
## 631 male	16.00	0	0	239865	26.0000	
## 632 male	25.00	0	0	349203	7.8958	
## 633 male	39.00	0	0	28213	13.0000	
## 634 female	49.00	0	0	17465	25.9292	D17
## 635 female	31.00	0	0	349244	8.6833	
## 636 male	30.00	0	0	2685	7.2292	
## 637 female	30.00	1	1	345773	24.1500	
## 638 male	34.00	0	0	250647	13.0000	
## 639 female	31.00	1	1	C.A. 31921	26.2500	
## 640 male	11.00	1	2	113760	120.0000	B96 B98
## 641 male	0.42	0	1	2625	8.5167	
## 642 male	27.00	0	0	347089	6.9750	
## 643 male	31.00	0	0	347063	7.7750	
## 644 male	39.00	0	0	112050	0.0000	A36
## 645 female	18.00	0	0	347087	7.7750	
## 646 male	39.00	0	0	248723	13.0000	
## 647 female	33.00	1	0	113806	53.1000	E8
## 648 male	26.00	0	0	3474	7.8875	
## 649 male	39.00	0	0	A/4 48871	24.1500	
## 650 male	35.00	0	0	28206	10.5000	
## 651 female	6.00	4	2	347082	31.2750	
## 652 male	30.50	0	0	364499	8.0500	
## 653 female	23.00	0	0	STON/O2. 3101290	7.9250	
## 654 male	31.00	1	1	S.C./PARIS 2079	37.0042	
## 655 male	43.00	0	0	C 7075	6.4500	
## 656 male	10.00	3	2	347088	27.9000	
## 657 female	52.00	1	1	12749	93.5000	B69
## 658 male	27.00	0	0	315098	8.6625	
## 659 male	38.00	0	0	19972	0.0000	
## 660 female	27.00	0	1	392096	12.4750	E121
## 661 male	2.00	4	1	3101295	39.6875	
## 662 male	1.00	0	2	S.C./PARIS 2079	37.0042	
## 663 female	62.00	0	0	113572	80.0000	B28
## 664 female	15.00	1	0	2659	14.4542	
## 665 male	0.83	1	1	29106	18.7500	



## 666	male	23.00	0	0	347468	7.8542	
## 667	male	18.00	0	0	2223	8.3000	
## 668	female	39.00	1	1	PC 17756	83.1583	E49
## 669	male	21.00	0	0	315097	8.6625	
## 670	male	32.00	0	0	1601	56.4958	
## 671	male	20.00	0	0	SOTON/02 3101287	7.9250	
## 672	male	16.00	0	0	S.O./P.P. 3	10.5000	
## 673	female	30.00	0	0	113798	31.0000	
## 674	male	34.50	0	0	2683	6.4375	
## 675	male	17.00	0	0	315090	8.6625	
## 676	male	42.00	0	0	C.A. 5547	7.5500	
## 677	male	35.00	0	0	349213	7.8958	
## 678	male	28.00	0	1	248727	33.0000	
## 679	male	4.00	4	2	347082	31.2750	
## 680	male	74.00	0	0	347060	7.7750	
## 681	female	9.00	1	1	2678	15.2458	
## 682	female	16.00	0	1	PC 17592	39.4000	D28
## 683	female	44.00	1	0	244252	26.0000	
## 684	female	18.00	0	1	392091	9.3500	
## 685	female	45.00	1	1	36928	164.8667	
## 686	male	51.00	0	0	113055	26.5500	E17
## 687	female	24.00	0	3	2666	19.2583	
## 688	male	41.00	2	0	350026	14.1083	
## 689	male	21.00	1	0	28134	11.5000	
## 690	female	48.00	0	0	17466	25.9292	D17
## 691	male	24.00	0	0	233866	13.0000	
## 692	female	42.00	0	0	236852	13.0000	
## 693	female	27.00	1	0	SC/PARIS 2149	13.8583	
## 694	male	31.00	0	0	PC 17590	50.4958	A24
## 695	male	4.00	1	1	347742	11.1333	
## 696	male	26.00	0	0	349248	7.8958	
## 697	female	47.00	1	1	11751	52.5542	D35
## 698	male	33.00	0	0	695	5.0000	B51 B53 B55
## 699	male	47.00	0	0	345765	9.0000	
## 700	female	28.00	1	0	P/PP 3381	24.0000	
## 701	female	15.00	0	0	2667	7.2250	
## 702	male	20.00	0	0	7534	9.8458	
## 703	male	19.00	0	0	349212	7.8958	
## 704	female	56.00	0	1	11767	83.1583	C50
## 705	female	25.00	0	1	230433	26.0000	
## 706	male	33.00	0	0	349257	7.8958	
## 707	female	22.00	0	0	7552	10.5167	
## 708	male	28.00	0	0	C.A./SOTON 34068	10.5000	
## 709	male	25.00	0	0	SOTON/OQ 392076	7.0500	
## 710	female	39.00	0	5	382652	29.1250	
## 711	male	27.00	0	0	211536	13.0000	
## 712	female	19.00	0	0	112053	30.0000	B42
## 713	male	26.00	0	0	111369	30.0000	C148
## 714	male	32.00	0	0	370376	7.7500	
##	Embarked						
## 1	S						
## 2	C						
## 3	S						
## 4	S						

## 5	S
## 6	S
## 7	S
## 8	S
## 9	C
## 10	S
## 11	S
## 12	S
## 13	S
## 14	S
## 15	S
## 16	Q
## 17	S
## 18	S
## 19	S
## 20	Q
## 21	S
## 22	S
## 23	S
## 24	S
## 25	C
## 26	S
## 27	C
## 28	S
## 29	S
## 30	S
## 31	C
## 32	S
## 33	S
## 34	C
## 35	Q
## 36	S
## 37	S
## 38	S
## 39	C
## 40	S
## 41	C
## 42	S
## 43	C
## 44	S
## 45	S
## 46	C
## 47	
## 48	S
## 49	S
## 50	S
## 51	S
## 52	S
## 53	S
## 54	S
## 55	S
## 56	S
## 57	C
## 58	S

## 59	S
## 60	S
## 61	S
## 62	S
## 63	S
## 64	S
## 65	S
## 66	S
## 67	S
## 68	S
## 69	S
## 70	S
## 71	S
## 72	S
## 73	S
## 74	S
## 75	C
## 76	C
## 77	S
## 78	S
## 79	S
## 80	S
## 81	S
## 82	S
## 83	S
## 84	S
## 85	S
## 86	S
## 87	C
## 88	S
## 89	S
## 90	C
## 91	S
## 92	Q
## 93	S
## 94	C
## 95	S
## 96	S
## 97	C
## 98	S
## 99	S
## 100	C
## 101	S
## 102	S
## 103	C
## 104	S
## 105	S
## 106	S
## 107	S
## 108	C
## 109	S
## 110	S
## 111	S
## 112	C

## 113	S
## 114	S
## 115	Q
## 116	S
## 117	S
## 118	S
## 119	S
## 120	S
## 121	S
## 122	S
## 123	S
## 124	S
## 125	S
## 126	C
## 127	Q
## 128	S
## 129	S
## 130	S
## 131	S
## 132	S
## 133	S
## 134	S
## 135	S
## 136	S
## 137	S
## 138	Q
## 139	S
## 140	S
## 141	C
## 142	S
## 143	C
## 144	S
## 145	S
## 146	S
## 147	S
## 148	S
## 149	S
## 150	Q
## 151	S
## 152	S
## 153	S
## 154	S
## 155	S
## 156	C
## 157	C
## 158	S
## 159	S
## 160	S
## 161	S
## 162	C
## 163	S
## 164	S
## 165	S
## 166	C

## 167	Q
## 168	C
## 169	S
## 170	S
## 171	S
## 172	S
## 173	C
## 174	S
## 175	S
## 176	C
## 177	S
## 178	S
## 179	S
## 180	S
## 181	S
## 182	S
## 183	S
## 184	S
## 185	S
## 186	S
## 187	S
## 188	S
## 189	S
## 190	S
## 191	S
## 192	S
## 193	S
## 194	S
## 195	S
## 196	S
## 197	C
## 198	Q
## 199	S
## 200	S
## 201	S
## 202	S
## 203	S
## 204	S
## 205	S
## 206	S
## 207	C
## 208	S
## 209	C
## 210	S
## 211	S
## 212	S
## 213	S
## 214	S
## 215	S
## 216	S
## 217	S
## 218	S
## 219	S
## 220	S

##	221	C
##	222	S
##	223	S
##	224	Q
##	225	S
##	226	Q
##	227	S
##	228	S
##	229	S
##	230	C
##	231	S
##	232	S
##	233	S
##	234	Q
##	235	S
##	236	C
##	237	C
##	238	S
##	239	S
##	240	C
##	241	S
##	242	C
##	243	S
##	244	S
##	245	C
##	246	C
##	247	C
##	248	C
##	249	C
##	250	S
##	251	S
##	252	S
##	253	S
##	254	S
##	255	S
##	256	S
##	257	C
##	258	S
##	259	S
##	260	Q
##	261	S
##	262	C
##	263	S
##	264	S
##	265	S
##	266	C
##	267	S
##	268	S
##	269	S
##	270	S
##	271	C
##	272	S
##	273	S
##	274	S

## 275	S
## 276	S
## 277	S
## 278	S
## 279	S
## 280	S
## 281	S
## 282	S
## 283	S
## 284	C
## 285	S
## 286	S
## 287	S
## 288	S
## 289	S
## 290	C
## 291	C
## 292	S
## 293	S
## 294	C
## 295	C
## 296	C
## 297	S
## 298	S
## 299	C
## 300	S
## 301	S
## 302	C
## 303	C
## 304	S
## 305	C
## 306	C
## 307	S
## 308	S
## 309	S
## 310	S
## 311	S
## 312	C
## 313	S
## 314	S
## 315	S
## 316	C
## 317	S
## 318	S
## 319	S
## 320	S
## 321	S
## 322	S
## 323	S
## 324	S
## 325	S
## 326	S
## 327	S
## 328	S

## 329	S
## 330	S
## 331	S
## 332	Q
## 333	S
## 334	S
## 335	S
## 336	S
## 337	S
## 338	Q
## 339	S
## 340	S
## 341	S
## 342	S
## 343	S
## 344	S
## 345	S
## 346	S
## 347	S
## 348	S
## 349	S
## 350	S
## 351	S
## 352	S
## 353	S
## 354	S
## 355	S
## 356	S
## 357	S
## 358	S
## 359	S
## 360	S
## 361	C
## 362	S
## 363	S
## 364	C
## 365	C
## 366	C
## 367	S
## 368	S
## 369	S
## 370	S
## 371	S
## 372	S
## 373	S
## 374	S
## 375	C
## 376	S
## 377	S
## 378	C
## 379	S
## 380	S
## 381	S
## 382	S



## 383	S
## 384	S
## 385	S
## 386	S
## 387	C
## 388	S
## 389	C
## 390	S
## 391	S
## 392	S
## 393	S
## 394	C
## 395	S
## 396	C
## 397	S
## 398	S
## 399	S
## 400	Q
## 401	S
## 402	S
## 403	C
## 404	S
## 405	S
## 406	S
## 407	Q
## 408	S
## 409	C
## 410	S
## 411	S
## 412	S
## 413	S
## 414	S
## 415	S
## 416	S
## 417	C
## 418	Q
## 419	S
## 420	S
## 421	S
## 422	S
## 423	C
## 424	S
## 425	S
## 426	S
## 427	C
## 428	C
## 429	S
## 430	S
## 431	S
## 432	S
## 433	C
## 434	S
## 435	S
## 436	S

## 437	S
## 438	C
## 439	S
## 440	C
## 441	S
## 442	S
## 443	C
## 444	S
## 445	S
## 446	S
## 447	S
## 448	S
## 449	S
## 450	S
## 451	S
## 452	S
## 453	S
## 454	S
## 455	S
## 456	S
## 457	S
## 458	S
## 459	S
## 460	S
## 461	C
## 462	S
## 463	C
## 464	S
## 465	S
## 466	C
## 467	S
## 468	S
## 469	C
## 470	S
## 471	S
## 472	S
## 473	S
## 474	C
## 475	S
## 476	S
## 477	C
## 478	S
## 479	S
## 480	S
## 481	C
## 482	S
## 483	S
## 484	S
## 485	S
## 486	S
## 487	S
## 488	S
## 489	S
## 490	C

## 491	S
## 492	C
## 493	S
## 494	S
## 495	S
## 496	Q
## 497	S
## 498	S
## 499	S
## 500	S
## 501	C
## 502	S
## 503	S
## 504	S
## 505	S
## 506	S
## 507	S
## 508	C
## 509	S
## 510	C
## 511	C
## 512	S
## 513	C
## 514	S
## 515	S
## 516	S
## 517	Q
## 518	S
## 519	Q
## 520	S
## 521	C
## 522	S
## 523	C
## 524	S
## 525	S
## 526	S
## 527	S
## 528	S
## 529	S
## 530	S
## 531	S
## 532	S
## 533	S
## 534	S
## 535	S
## 536	S
## 537	S
## 538	C
## 539	C
## 540	S
## 541	S
## 542	S
## 543	C
## 544	S

## 545	S
## 546	S
## 547	S
## 548	S
## 549	C
## 550	C
## 551	S
## 552	S
## 553	S
## 554	C
## 555	S
## 556	C
## 557	S
## 558	C
## 559	Q
## 560	S
## 561	S
## 562	S
## 563	S
## 564	S
## 565	C
## 566	S
## 567	S
## 568	S
## 569	S
## 570	C
## 571	S
## 572	S
## 573	S
## 574	S
## 575	S
## 576	S
## 577	S
## 578	S
## 579	S
## 580	S
## 581	S
## 582	S
## 583	C
## 584	S
## 585	S
## 586	S
## 587	S
## 588	C
## 589	S
## 590	C
## 591	S
## 592	S
## 593	S
## 594	S
## 595	S
## 596	S
## 597	Q
## 598	S

## 599	S
## 600	S
## 601	S
## 602	S
## 603	S
## 604	S
## 605	S
## 606	S
## 607	S
## 608	S
## 609	C
## 610	S
## 611	S
## 612	S
## 613	Q
## 614	S
## 615	S
## 616	S
## 617	S
## 618	S
## 619	S
## 620	S
## 621	S
## 622	C
## 623	S
## 624	S
## 625	S
## 626	S
## 627	S
## 628	Q
## 629	S
## 630	C
## 631	S
## 632	S
## 633	S
## 634	S
## 635	S
## 636	C
## 637	S
## 638	S
## 639	S
## 640	S
## 641	C
## 642	S
## 643	S
## 644	S
## 645	S
## 646	S
## 647	S
## 648	S
## 649	S
## 650	S
## 651	S
## 652	S

## 653	S
## 654	C
## 655	S
## 656	S
## 657	S
## 658	S
## 659	S
## 660	S
## 661	S
## 662	C
## 663	
## 664	C
## 665	S
## 666	S
## 667	S
## 668	C
## 669	S
## 670	S
## 671	S
## 672	S
## 673	C
## 674	C
## 675	S
## 676	S
## 677	C
## 678	S
## 679	S
## 680	S
## 681	C
## 682	S
## 683	S
## 684	S
## 685	S
## 686	S
## 687	C
## 688	S
## 689	S
## 690	S
## 691	S
## 692	S
## 693	C
## 694	S
## 695	S
## 696	S
## 697	S
## 698	S
## 699	S
## 700	C
## 701	C
## 702	S
## 703	S
## 704	C
## 705	S
## 706	S

```
## 707      S
## 708      S
## 709      S
## 710      Q
## 711      S
## 712      S
## 713      C
## 714      Q
```

On the other hand, keeping missing factor levels might be able to lead to meaningful models Empty level names of the Cabin and Embarked factors will cause problems in some analysis. Other missing factor value imputation remains a good option beyond the scope of this tutorial.

#### 5.0.4 Counts of empty strings in columns

no changes needed. demonstration of counting empty columns.

```
# Count empty strings in all columns
# filter to count all nonzero columns
titanic %>%
  summarize(across(everything(), ~ sum(. == ""))) %>%
  t() %>%
  as.data.frame() %>%
  filter(V1>0)
```

```
##          V1
## Cabin    687
## Embarked   2
```

again no changes needed here We demonstrate how to replace empty column values with “missing” Then we check to see if there are any empty strings again.

```
titanic <- titanic %>%
  mutate(Cabin = if_else(Cabin == "", "Missing", Cabin),
         Embarked = if_else(Embarked == "", "Missing", Embarked))

titanic %>%
  summarize(across(everything(), ~ sum(. == "")))
```

```
## PassengerId Survived Pclass Name Sex Age SibSp Parch Ticket Fare Cabin
## 1           0         0      0    0  0  NA      0      0      0      0      0
## Embarked
## 1           0
```

## 6 Understanding numeric variables

replace YOUADDFAREHERE with the Fare column

```
# base R version
summary(titanic[c("Sex", "Age")])
```

```
##      Sex      Age
## Length:891   Min.   : 0.42
## Class :character 1st Qu.:20.12
## Mode  :character Median :28.00
##                Mean  :29.70
##                3rd Qu.:38.00
##                Max.   :80.00
##                NA's   :177
```

```
#tidyverse version
titanic %>% select(Sex, Age) %>% summary()
```

```
##      Sex      Age
## Length:891   Min.   : 0.42
## Class :character 1st Qu.:20.12
## Mode  :character Median :28.00
##                Mean  :29.70
##                3rd Qu.:38.00
##                Max.   :80.00
##                NA's   :177
```

```
# YOU DO.
titanic %>% select(Sex, Age, Fare) %>% summary()
```

```
##      Sex      Age      Fare
## Length:891   Min.   : 0.42   Min.   : 0.00
## Class :character 1st Qu.:20.12 1st Qu.: 7.91
## Mode  :character Median :28.00 Median :14.45
##                Mean  :29.70 Mean  :32.20
##                3rd Qu.:38.00 3rd Qu.:31.00
##                Max.   :80.00 Max.   :512.33
##                NA's   :177
```

## 6.1 Quantile function

Show summary of one or more columns

simply uncomment to run. no changes needed.

```
# quintiles and deciles in Base R

quantile(titanic$Fare, seq(from = 0, to = 1, by = 0.20))
```

```
##      0%      20%      40%      60%      80%     100%
## 0.0000  7.8542 10.5000 21.6792 39.6875 512.3292
```



```
quantile(titanic$Fare, seq(from = 0, to = 1, by = 0.10))
```

```
##      0%      10%      20%      30%      40%      50%      60%      70%
## 0.0000  7.5500  7.8542  8.0500 10.5000 14.4542 21.6792 27.0000
##      80%      90%     100%
## 39.6875 77.9583 512.3292
```

```
# same in tidyverse
```

```
titanic %>% pull(Fare) %>% quantile(., seq(from = 0, to = 1, by = 0.20))
```

```
##      0%      20%      40%      60%      80%     100%
## 0.0000  7.8542 10.5000 21.6792 39.6875 512.3292
```

```
titanic %>% pull(Fare) %>% quantile(., seq(from = 0, to = 1, by = 0.10))
```

```
##      0%      10%      20%      30%      40%      50%      60%      70%
## 0.0000  7.5500  7.8542  8.0500 10.5000 14.4542 21.6792 27.0000
##      80%      90%     100%
## 39.6875 77.9583 512.3292
```

```
# now you do the same for Age
```

```
titanic %>% pull(Fare) %>% quantile(., seq(from = 0, to = 1, by = 0.20))
```

```
##      0%      20%      40%      60%      80%     100%
## 0.0000  7.8542 10.5000 21.6792 39.6875 512.3292
```

```
titanic %>% pull(Fare) %>% quantile(., seq(from = 0, to = 1, by = 0.10))
```

```
##      0%      10%      20%      30%      40%      50%      60%      70%
## 0.0000  7.5500  7.8542  8.0500 10.5000 14.4542 21.6792 27.0000
##      80%      90%     100%
## 39.6875 77.9583 512.3292
```

## 6.2 Boxplots

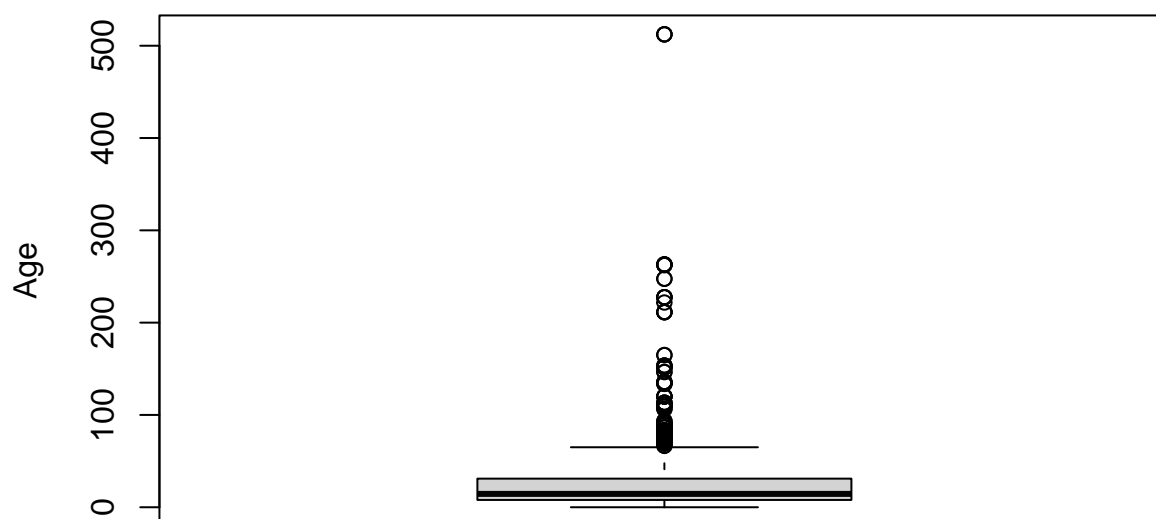
Useful numeric visualization.

uncomment and then change the Iris dataset reference to show fare from titanic instead.

```
# Base R
```

```
boxplot(titanic$Fare, main="Boxplot of Age in the titanic data set",
        ylab="Age")
```

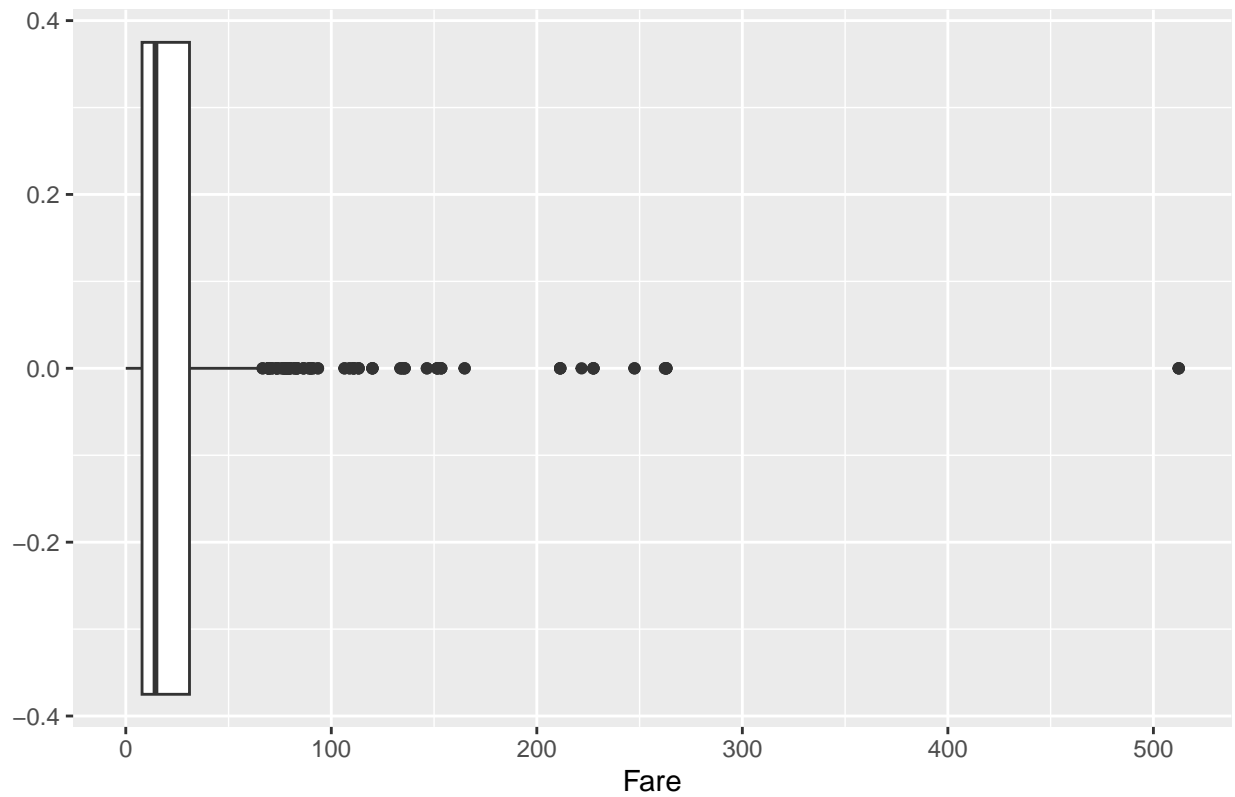
## Boxplot of Age in the titanic data set



```
# ggplot
# replace the following code with code to display Fare.
# change the title to reflect the new data.

titanic %>%
  ggplot(aes(x=Fare)) +
  geom_boxplot() +
  ggtitle('Ggplot of Age in the titanic data set')
```

Ggplot of Age in the titanic data set

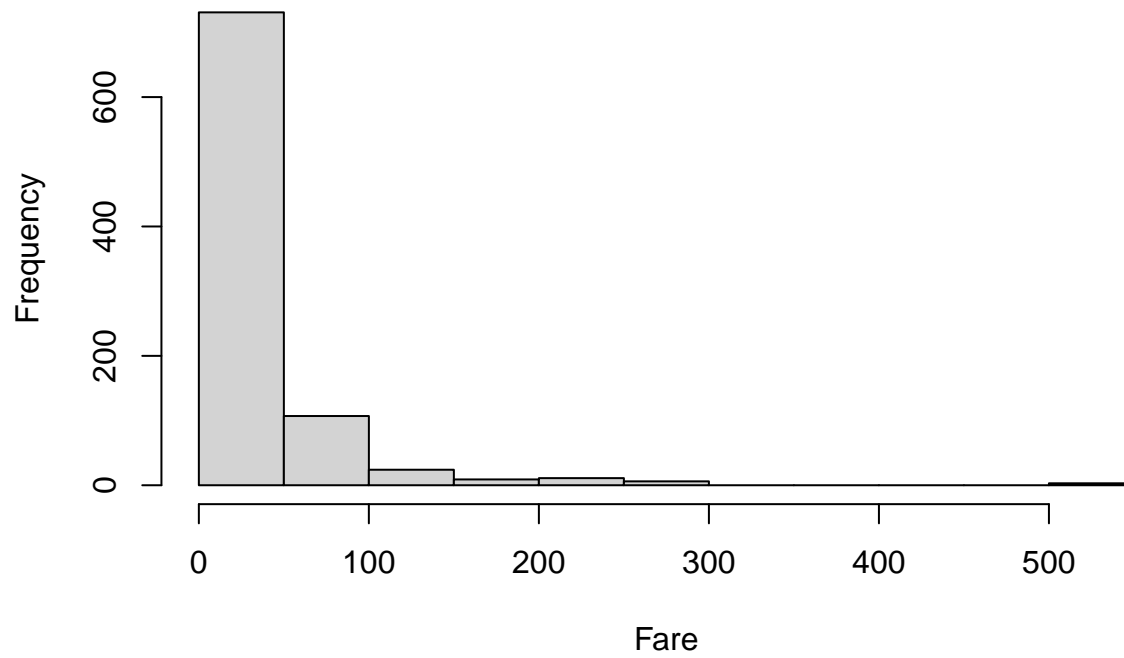


uncomment the second plot and replace Fare with Age to make a histogram of Age. make sure to change the title.

```
# histograms of a numeric variable
```

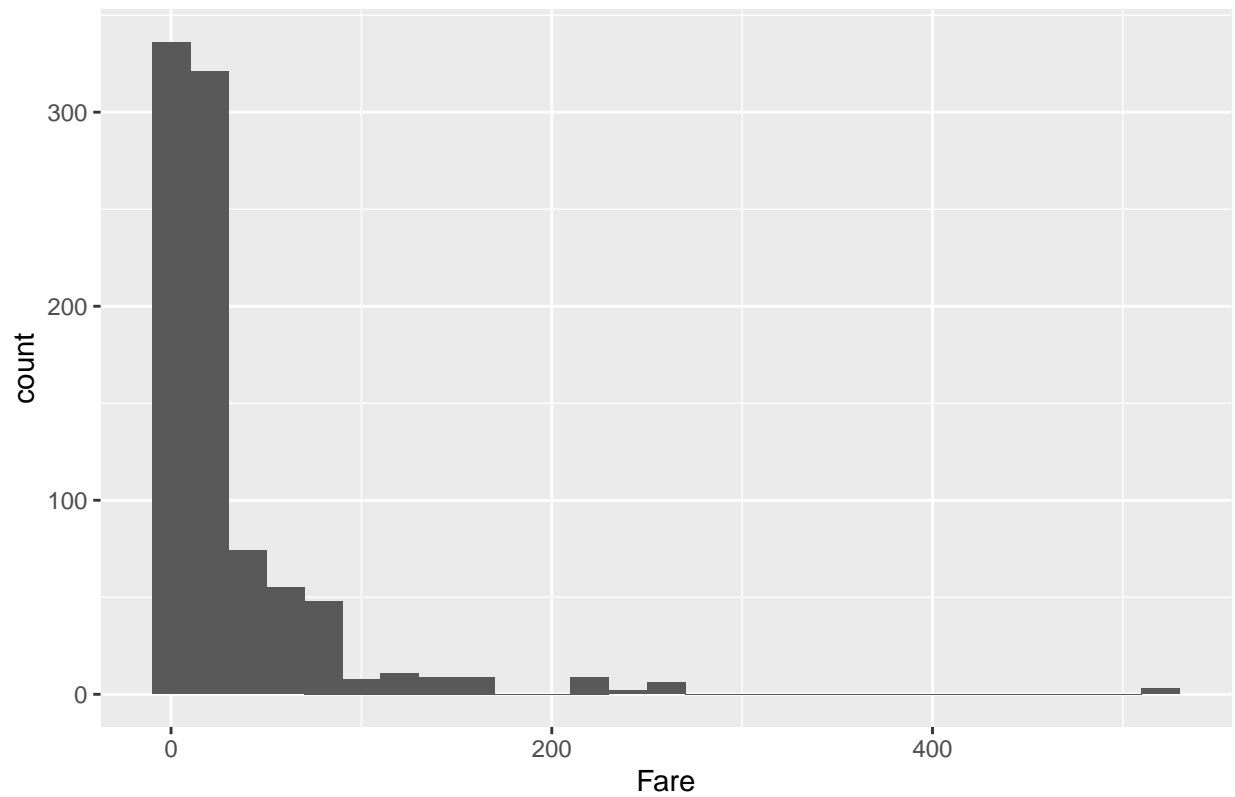
```
hist(titanic$Fare, main = "Histogram of Fare in the titanic data set",  
     xlab = "Fare")
```

**Histogram of Fare in the titanic data set**



```
titanic %>% ggplot() +  
  geom_histogram(aes(x=Fare),binwidth = 20) +  
  ggtitle('Histogram of Fare in the titanic data set')
```

Histogram of Fare in the titanic data set

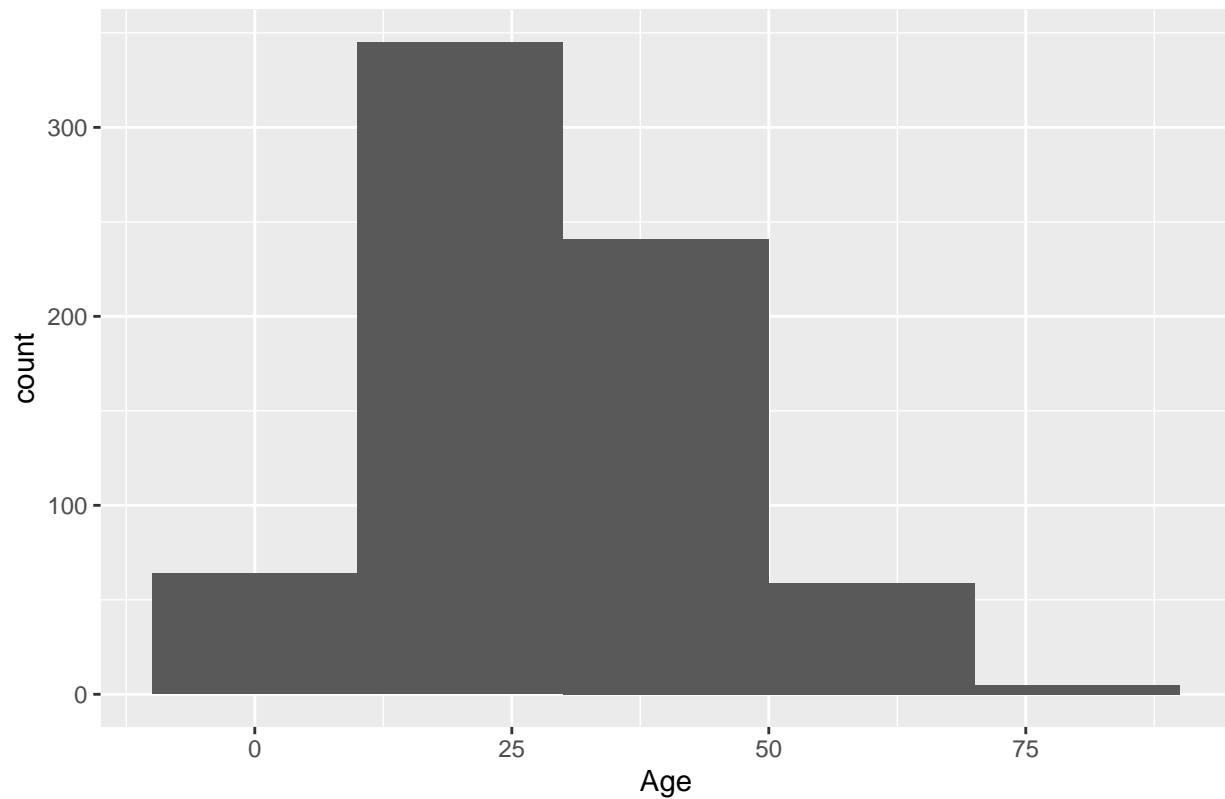


```
# create a new histogram of Age using the following template
```

```
titanic %>% ggplot() +  
  geom_histogram(aes(x=Age),binwidth = 20) +  
  ggtitle('Histogram of Age in the titanic data set')
```

```
## Warning: Removed 177 rows containing non-finite outside the scale range  
## ('stat_bin()').
```

Histogram of Age in the titanic data set



compute var and sd for the Age column. you can copy paste the code that is doing the same for Fare.

```
#base R  
var(titanic$Fare)
```

```
## [1] 2469.437
```

```
sd(titanic$Fare)
```

```
## [1] 49.69343
```

```
#tidyverse  
titanic %>% pull(Fare) %>% var()
```

```
## [1] 2469.437
```

```
titanic %>% pull(Fare) %>% sd()
```

```
## [1] 49.69343
```

```
# now you do the same for Age
```

```
# base R  
var(titanic$Age)
```

```
## [1] NA
```

```
sd(titanic$Age)
```

```
## [1] NA
```

```
# tidyverse  
titanic %>% pull(Age) %>% var()
```

```
## [1] NA
```

```
titanic %>% pull(Age) %>% sd()
```

```
## [1] NA
```

## 6.3 Rounding

It's nice to be able to make numeric variables more readable. Consider rounding to improve readability. again here try replicating the code to round the Age column

```
titanic %>% select(Fare) %>% head()
```

```
##      Fare  
## 1  7.2500  
## 2 71.2833  
## 3  7.9250  
## 4 53.1000  
## 5  8.0500  
## 6  8.4583
```

```
# rounded  
titanic %>% select(Fare) %>% round() %>% head()
```

```
##      Fare  
## 1      7  
## 2     71  
## 3      8  
## 4     53  
## 5      8  
## 6      8
```

```
# now you try for Age
```

```
# rounded Age  
titanic %>% select(Age) %>% round() %>% head()
```

```
##      Age  
## 1     22  
## 2     38  
## 3     26  
## 4     35  
## 5     35  
## 6    NA
```

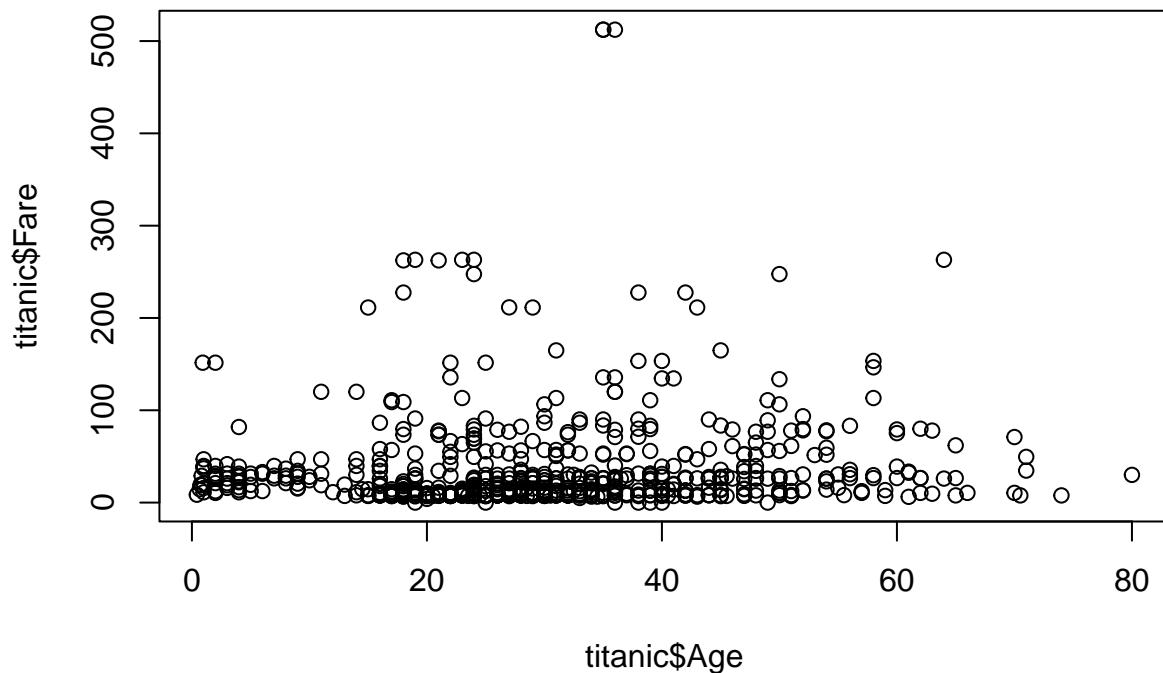
## 6.4 Understand relationship of multiple variables

Generate correlation coefficients of two numeric variables in a 2x2 matrix  $\text{cor}(X,Y)$  lies between -1 and 1. zero means no correlation. 1 or -1 indicates full correlation positive value means positive correlation and negative values mean negative relationships Examine the components in the formulation for correlation coefficients  $\text{cor}(X,Y) = \text{cov}(X,Y)/(\text{sd}(X)\text{sd}(Y))$   $\text{cov}(X,Y) = E[X-E(X)]E[Y-E(Y)]$

no changes needed here. simply run.

```
# cor,  boxplot, 2D scatter plot - plot, 3D scatter plot

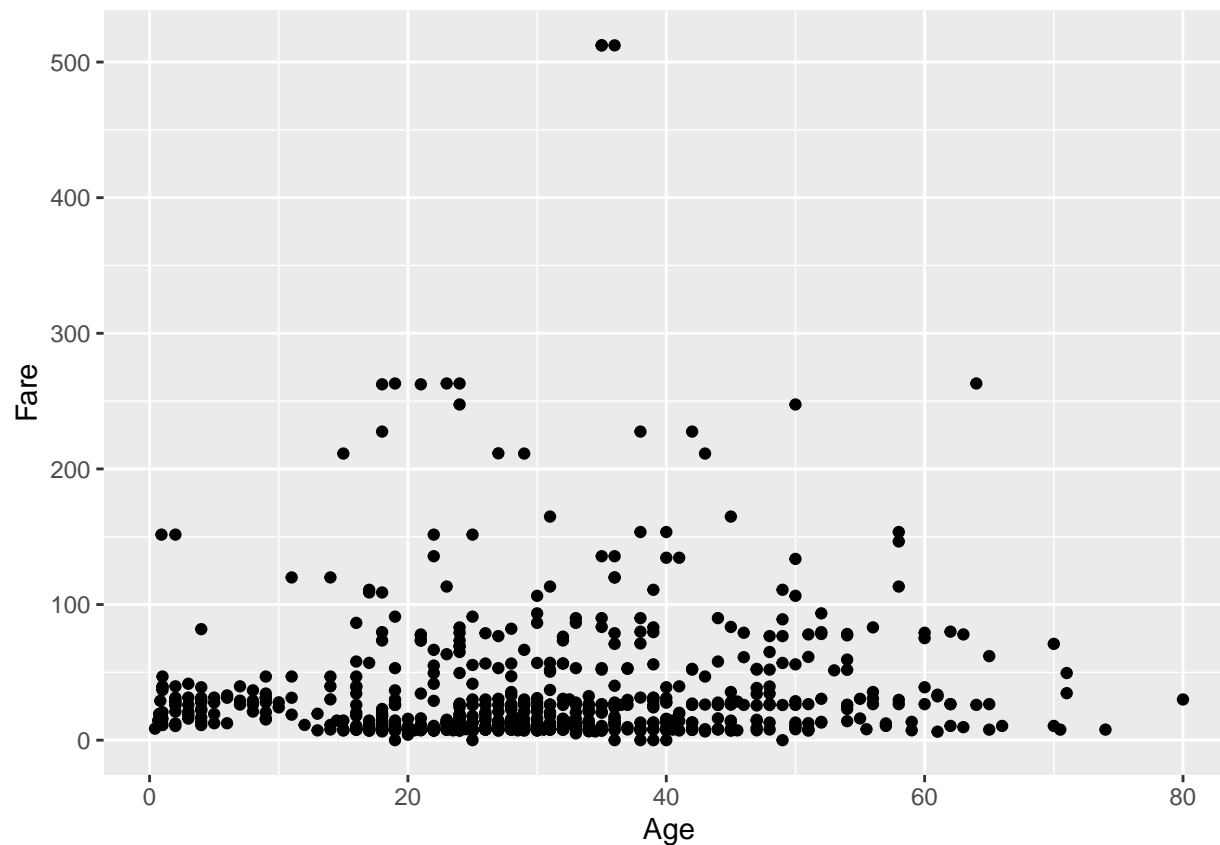
# scatter plot: two numeric variables
# base R
plot(titanic$Age, titanic$Fare)
```



```
# ggplot
titanic %>% ggplot() +
  geom_point(aes(x=Age,y=Fare))
```

```
## Warning: Removed 177 rows containing missing values or values outside the scale range
## ('geom_point()').
```





```
cov(titanic[,c("Fare", "Age")]) # this will display incorrect results if missing values are not removed
```

```
##           Fare Age
## Fare 2469.437 NA
## Age      NA NA
```

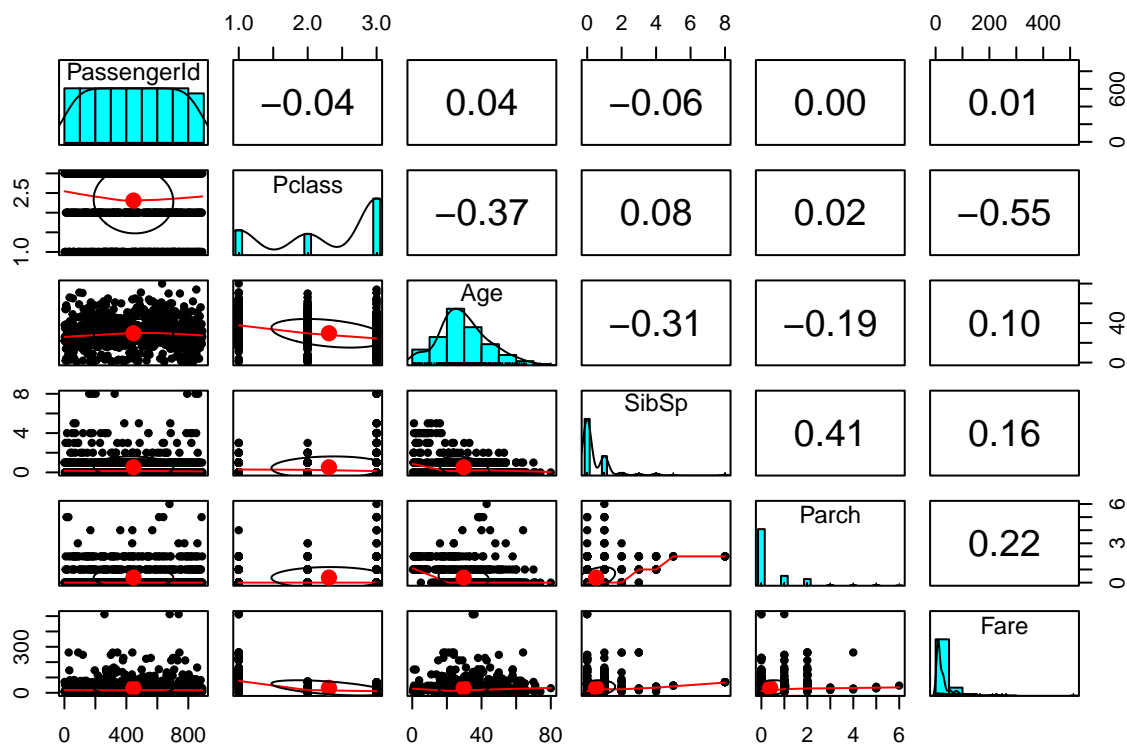
```
var(titanic[,c("Fare", "Age")])
```

```
##           Fare Age
## Fare 2469.437 NA
## Age      NA NA
```

## 6.5 pairs.panels

demonstrating how to pass only numeric variables to the `pairs.panels()` function. no changes needed here.

```
# Generate 2D scatter plots and correlation coefficients
# tidyverse
# select only numeric variables for pairs panels.
titanic %>% select(where(is.numeric)) %>% pairs.panels()
```



## 7 Exploring factor variables

### 7.1 `nlevels()`, `is.factor()`

replicate the code to show the levels of Pclass rather than Survived using the `nlevels()` function.

```
# A factor's distinct values
```

```
# base R
```

```
is.factor(titanic$Survived)
```

```
## [1] TRUE
```

```
nlevels(titanic$Survived)
```

```
## [1] 2
```

```
# tidy syntax
```

```
titanic %>% pull(Survived) %>% nlevels()
```

```
## [1] 2
```

```
# now you do the same for Pclass
```

```
# base R
```

```
is.factor(titanic$Pclass)
```

```
## [1] FALSE
```

```
nlevels(titanic$Pclass)
```

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

```
# tidy syntax
```

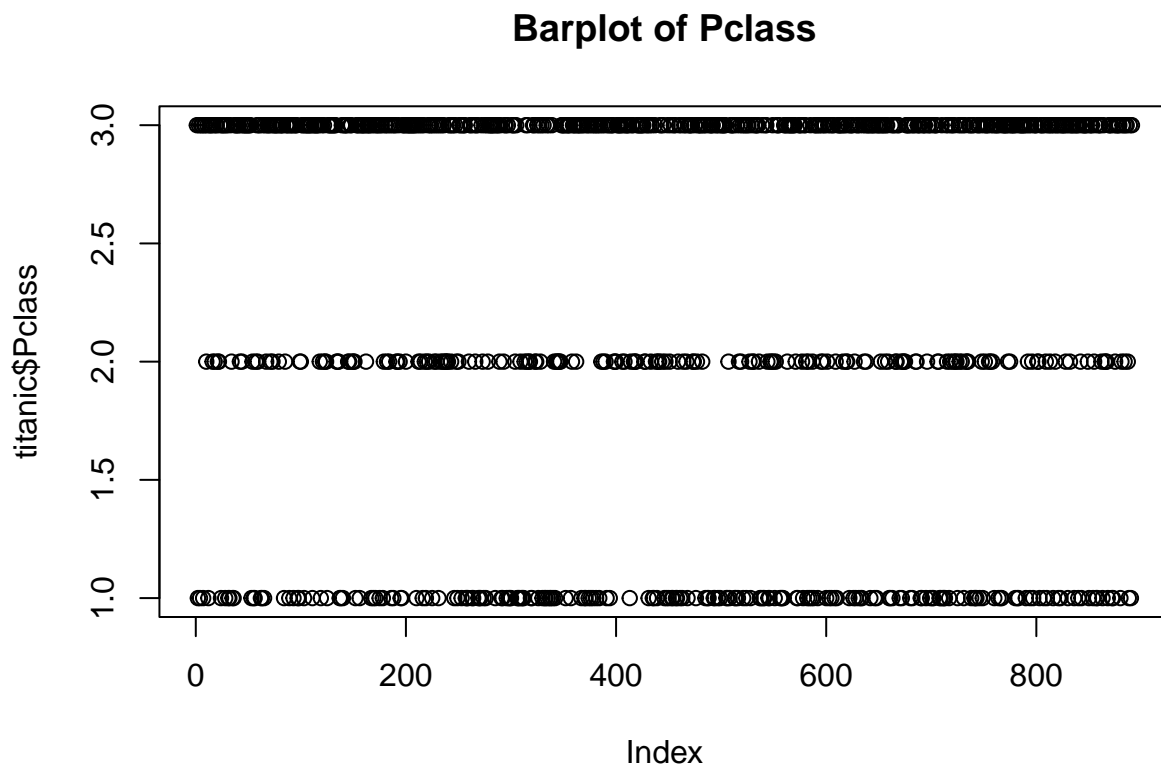
```
titanic %>% pull(Pclass) %>% nlevels()
```

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

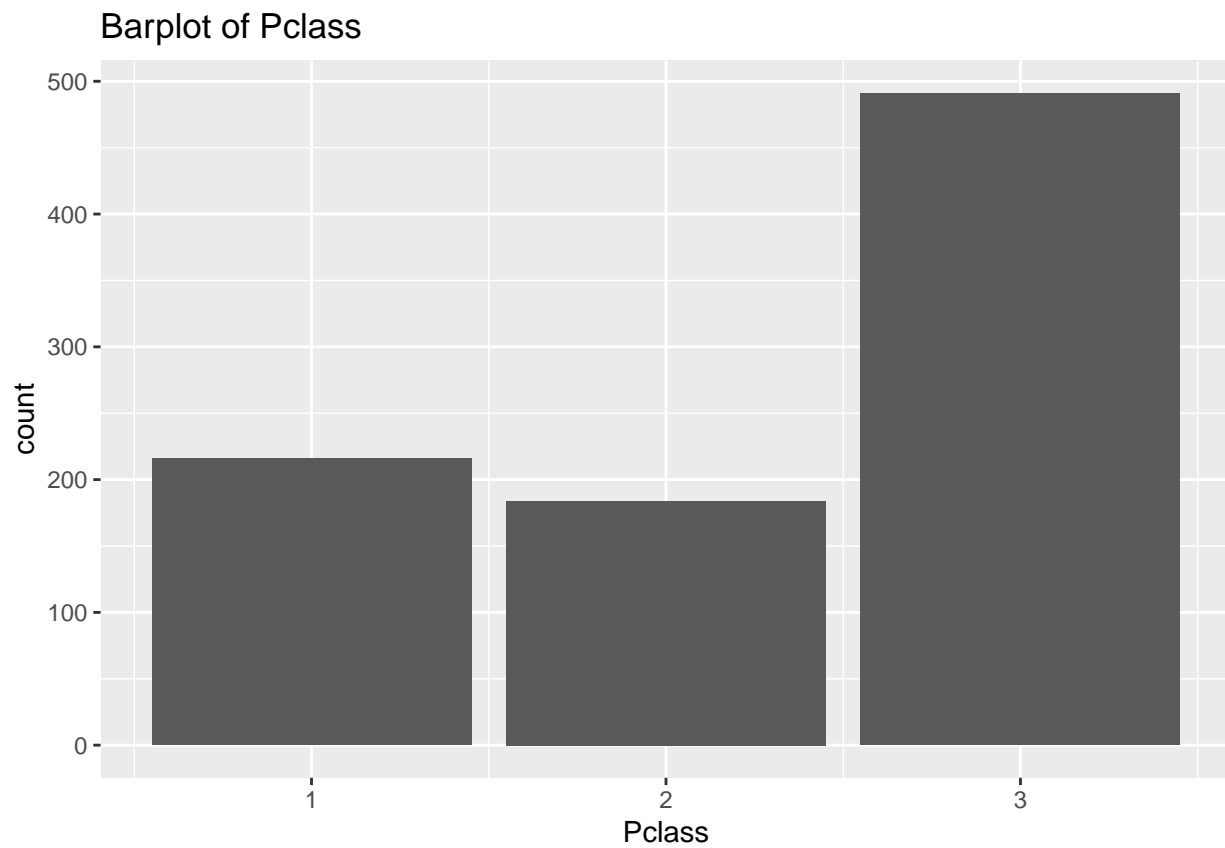
## 7.2 Barplot

replicate the barplot of Pclass for the Sex column. again here just steal the code and swap out the column.

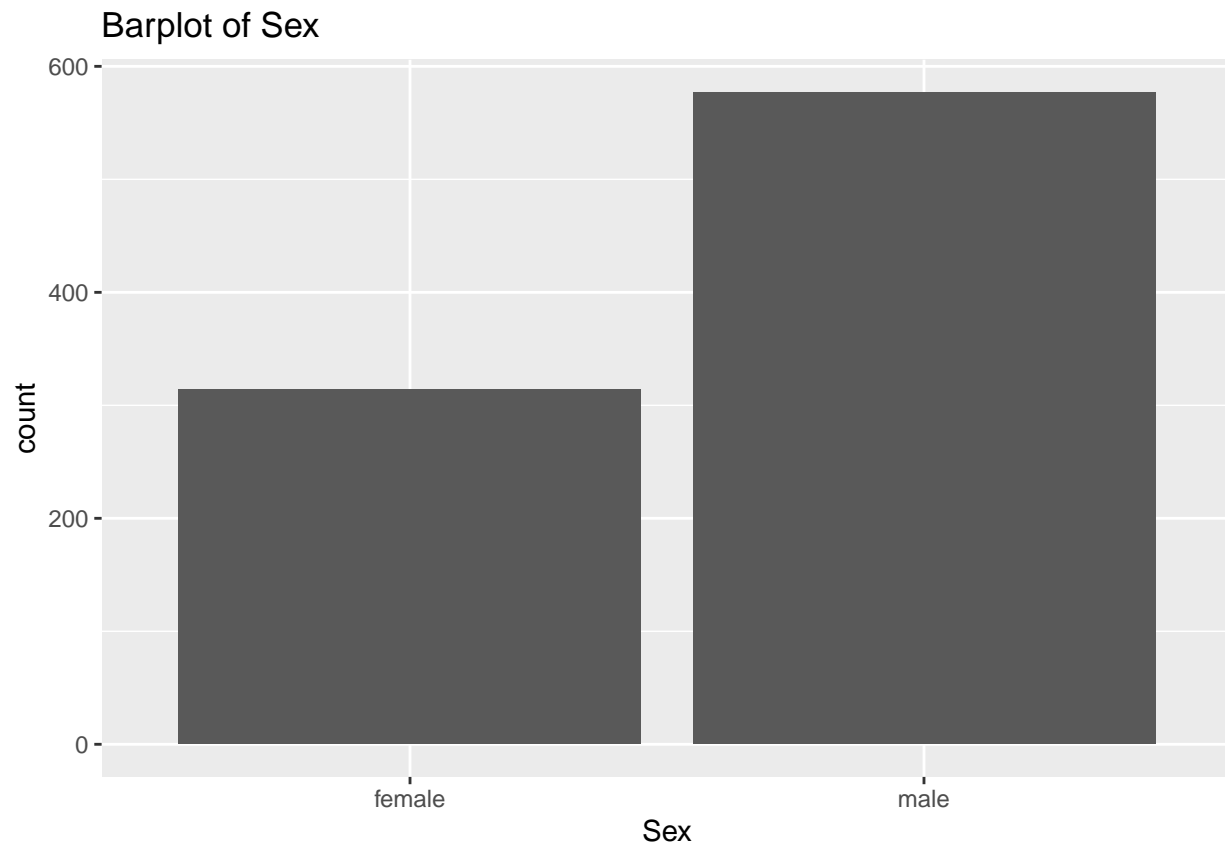
```
plot(titanic$Pclass,main="Barplot of Pclass")
```



```
#tidyveryse  
titanic %>% ggplot() +  
  geom_bar(aes(x=Pclass)) +  
  ggtitle("Barplot of Pclass")
```



```
# now you create a barplot for Sex  
  
#tidyveryse  
titanic %>% ggplot() +  
  geom_bar(aes(x=Sex)) +  
  ggtitle("Barplot of Sex")
```



# Exploring Categorical grouped by Categorical (Factor by Factor)  
 showing how to get counts for contingency table no changes needed here.

```
# base R
table(titanic$Survived,titanic$Pclass) # shows the raw counts
```

```
##
##      1   2   3
## 0  80  97 372
## 1 136  87 119
```

```
prop.table(table(titanic$Survived,titanic$Pclass)) # shows the proportions
```

```
##
##           1           2           3
## 0 0.08978676 0.10886644 0.41750842
## 1 0.15263749 0.09764310 0.13355780
```

```
prop.table(table(titanic$Survived,titanic$Pclass))*100 # shows the percentages
```

```
##
##           1           2           3
## 0  8.978676 10.886644 41.750842
## 1 15.263749  9.764310 13.355780
```

```
# sort of tidyverse (ish)
```

```
titanic %>% select(Survived,Pclass) %>% table()
```

```
##           Pclass
## Survived   1    2    3
##           0  80  97 372
##           1 136  87 119
```

```
titanic %>% select(Survived,Pclass) %>% table() %>% prop.table() %>% round(2)
```

```
##           Pclass
## Survived   1    2    3
##           0 0.09 0.11 0.42
##           1 0.15 0.10 0.13
```

```
titanic %>% select(Survived,Pclass) %>% table() %>% prop.table() %>% round(2) * 100
```

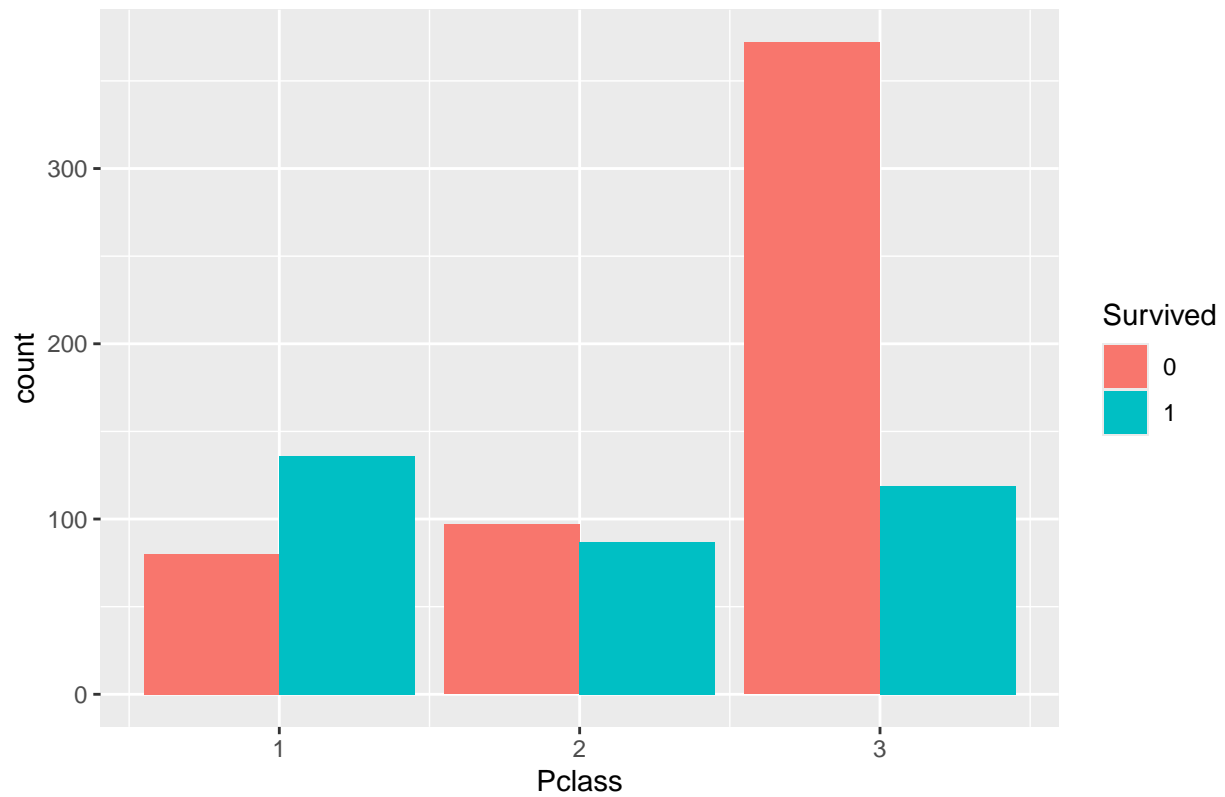
```
##           Pclass
## Survived   1    2    3
##           0   9  11  42
##           1  15  10  13
```

create a barplot of Sex grouped by Survived by copy and pasting the code for Pclass and Survived.

```
#tidyveryse
```

```
titanic %>% ggplot() +  
  geom_bar(aes(x=Pclass,fill=Survived),position="dodge") +  
  ggtitle("Barplot of Pclass by Survived")
```

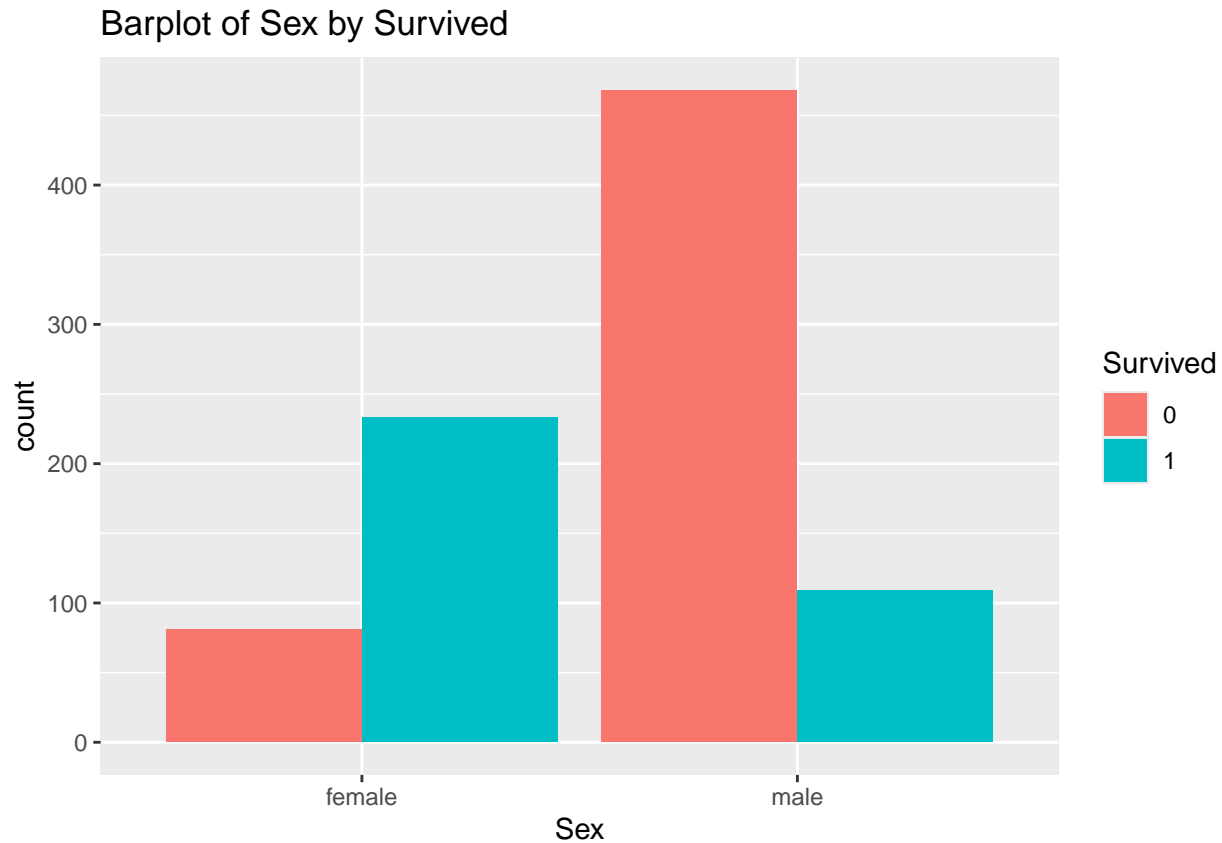
Barplot of Pclass by Survived



*# now you create a barplot for Sex grouped by Survived*

*#tidyveryse*

```
titanic %>% ggplot() +  
  geom_bar(aes(x=Sex,fill=Survived),position="dodge") +  
  ggtitle("Barplot of Sex by Survived")
```



Wow! A lot more passengers in Class 3 didn't survive than those who did. And conversely in Class 1 more passengers survived than did not. In Class 2 it was a bit of a mixed bag.

Often simply looking at a single column is insufficient for the needs of the analysis. Being able to ask the question: When I group the data by a column, how do other columns behave? Is a more interesting and useful EDA task. For example: In the titanic how do the groups of passengers who survived differ from those who did not? Group our data by survived to explore this question.

## 8 Exploring numeric variables by factors

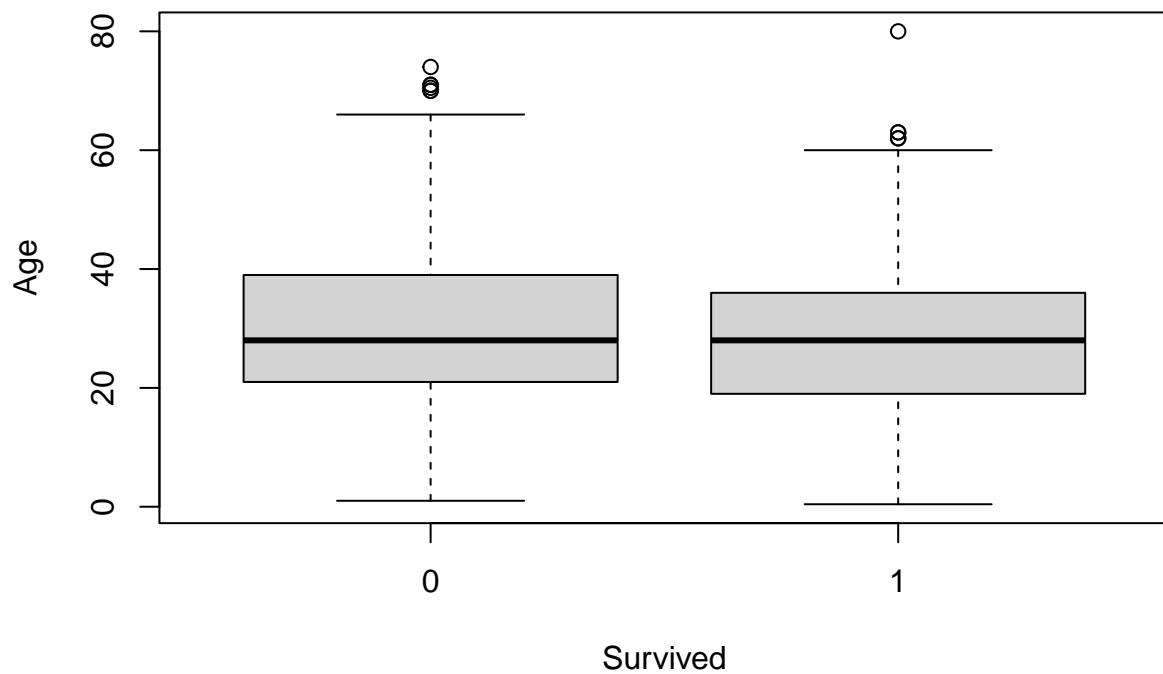
### 8.1 Boxplot

This groups values of a numeric variable based on the values of a factor

simply uncomment the ggplot code to see how to make a boxplot grouped by a categorical variable.

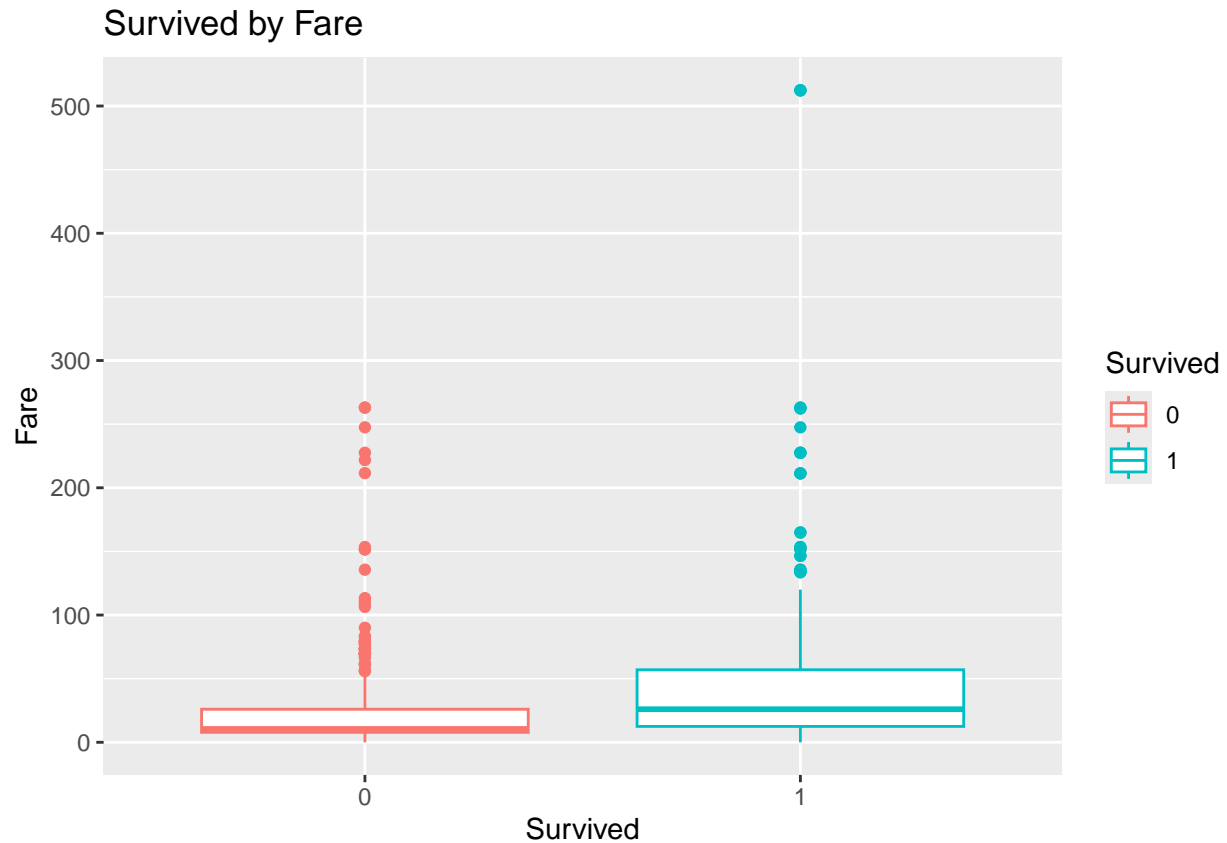
```
# base R  
boxplot(Age~Survived, data = titanic)
```





*# Below change the graph to display the difference between Survived by Fare*

```
titanic %>%  
  ggplot() +  
  geom_boxplot(aes(x=Survived,y=Fare,color=Survived)) +  
  ggtitle('Survived by Fare')
```



## The aggregate function

no changes needed here. simply run.

*# We can use the aggregate command to aggregate a numeric feature by a categorical one.*

*# The aggregate function has three parameters*

*# 1. The numeric value, e.g. sales, to be aggregated to find out, e.g., total of sales, average of sales, number of sales (i.e. orders).*

*# 2. The set of categories, product\_category and sales\_region, on which you wish to aggregate*

*# 3. The aggregation function (e.g., sum, mean, length) that you wish to use*

*# this will not show in output until Knit.*

```
aggregate(Fare~Survived, summary, data = titanic)
```

```
##   Survived Fare.Min. Fare.1st Qu. Fare.Median Fare.Mean Fare.3rd Qu. Fare.Max.
## 1        0  0.00000    7.85420    10.50000    22.11789    26.00000 263.00000
## 2        1  0.00000   12.47500    26.00000    48.39541    57.00000 512.32920
```

*#tidyverse*

```
titanic %>%
```

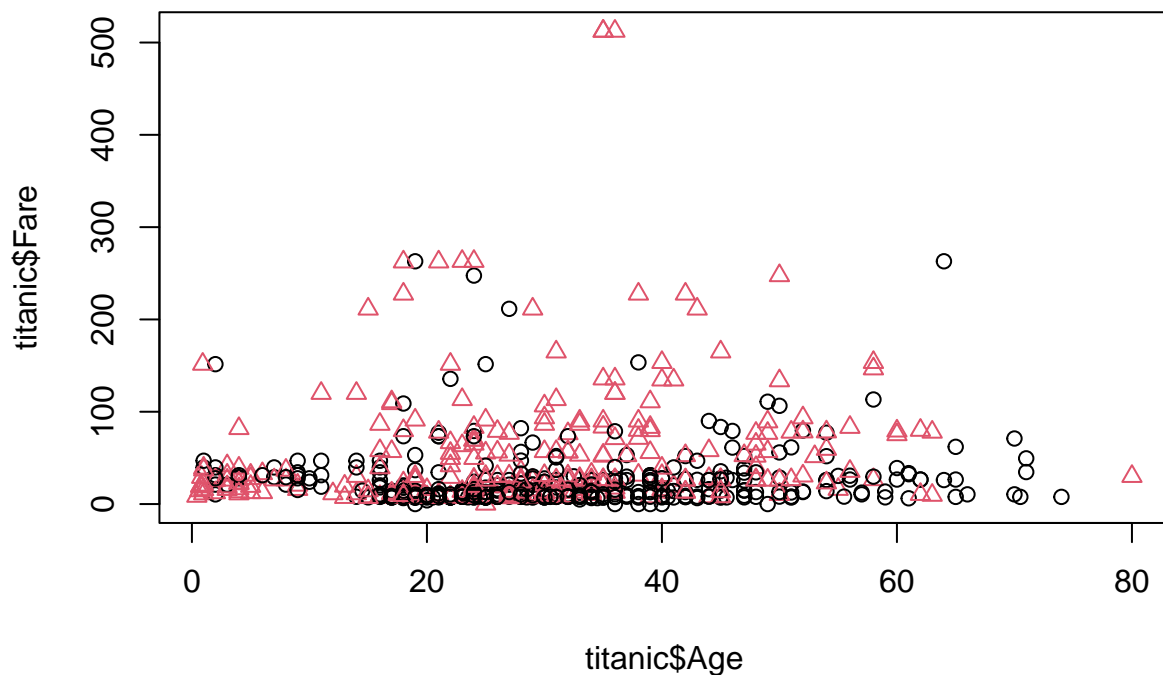
```
group_by(Survived) %>%
  summarize(
    min = min(Fare),
    q1 = quantile(Fare, 0.25),
    median = median(Fare),
    mean = mean(Fare), # adding in mean as well
    q3 = quantile(Fare, 0.75),
    max = max(Fare)
  )
```

```
## # A tibble: 2 x 7
##   Survived  min    q1 median  mean    q3   max
##   <fct>    <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
## 1 0          0  7.85  10.5  22.1   26  263
## 2 1          0 12.5   26   48.4   57  512.
```

## 8.2 Scatter plot of numeric values and factor values

no changes needed here. simply run.

```
plot(titanic$Age,titanic$Fare, col=titanic$Survived, pch = as.numeric((titanic$Survived)))
```



```
titanic %>% ggplot() + geom_point(aes(x=Age,y=Fare,color=Survived))
```

```
## Warning: Removed 177 rows containing missing values or values outside the scale range  
## ('geom_point()').
```

