```
import pandas as pd
pd
data=pd.read_excel("/content/Telco-Customer-Churn.xlsx")
```

```
data
```

	customerID	gender	SeniorCitizen	Partner	Dependents	tenure	PhoneServi
0	7590-VHVEG	Female	0	Yes	No	1	I
1	5575-GNVDE	Male	0	No	No	34	Y
2	3668-QPYBK	Male	0	No	No	2	Y
3	7795-CFOCW	Male	0	No	No	45	I
4	9237-HQITU	Female	0	No	No	2	Y
...	...	...	...	...	...	...	
7038	6840-RESVB	Male	0	Yes	Yes	24	Y
7039	2234-XADUH	Female	0	Yes	Yes	72	Y
7040	4801-JZAZL	Female	0	Yes	Yes	11	I
7041	8361-LTMKD	Male	1	Yes	No	4	Y
7042	3186-AJIEK	Male	0	No	No	66	Y

7043 rows × 21 columns

```
#Q1
d1=data[data["Churn"]=="No"]
d1
d1["gender"].value_counts()
```

```
Male      2625
Female    2549
Name: gender, dtype: int64
```

```
d1=data[data["Churn"]=="No"]
d1["SeniorCitizen"].value_counts()
```

```
0    4508
1     666
```

```
      Name: SeniorCitizen, dtype: int64


#Q2
d2=data[data["Churn"]=="Yes"]
d2["gender"].value_counts()

      Female    939
      Male      930
      Name: gender, dtype: int64


d2=data[data["Churn"]=="Yes"]
d2["SeniorCitizen"].value_counts()

      0    1393
      1     476
      Name: SeniorCitizen, dtype: int64


#Q3
d1=data[data["Churn"]=="No"]
d1["PaymentMethod"].value_counts()

      Mailed check                1304
      Electronic check            1294
      Credit card (automatic)     1290
      Bank transfer (automatic)   1286
      Name: PaymentMethod, dtype: int64


d2=data[data["Churn"]=="Yes"]
d2["PaymentMethod"].value_counts()

      Electronic check            1071
      Mailed check                 308
      Bank transfer (automatic)    258
      Credit card (automatic)      232
      Name: PaymentMethod, dtype: int64


c1=data[data["Contract"]=="Month-to-month"]
c1["PaymentMethod"].value_counts()

      Electronic check            1850
      Mailed check                 893
      Bank transfer (automatic)    589
      Credit card (automatic)      543
      Name: PaymentMethod, dtype: int64


c2=data[data["Contract"]=="One year"]
c2["PaymentMethod"].value_counts()

      Credit card (automatic)     398
      Bank transfer (automatic)   391
      Electronic check            347
      Mailed check                337
      Name: PaymentMethod, dtype: int64
```

```
c3=data[data["Contract"]=="Two year"]
c3["PaymentMethod"].value_counts()
```

```
Credit card (automatic)      581
Bank transfer (automatic)    564
Mailed check                 382
Electronic check             168
Name: PaymentMethod, dtype: int64
```

```
#Q5
g1=data[data["gender"]=="Male"]
g1["TotalCharges"].describe()
```

```
count    3555.000000
mean     2291.680667
std      2273.095299
min        18.800000
25%       399.275000
50%      1406.000000
75%      3778.100000
max      8684.800000
Name: TotalCharges, dtype: float64
```

```
g2=data[data["gender"]=="Female"]
g2["TotalCharges"].describe()
```

```
count    3488.000000
mean     2289.338308
std      2276.695359
min        18.850000
25%       403.300000
50%      1389.050000
75%      3834.062500
max      8672.450000
Name: TotalCharges, dtype: float64
```

Double-click (or enter) to edit

```
p1=data[data["PaymentMethod"]=="Electronic check"]

p1["TotalCharges"].describe()
```

```
count    0.0
mean     NaN
std      NaN
min      NaN
25%      NaN
50%      NaN
75%      NaN
max      NaN
Name: TotalCharges, dtype: float64
```

```
p1=data[data["PaymentMethod"]=="Electronic check"]
p1["TotalCharges"].describe()
```

```
count    0.0
mean     NaN
std      NaN
min      NaN
25%      NaN
50%      NaN
75%      NaN
max      NaN
Name: TotalCharges, dtype: float64
```

```
p2=data[data["PaymentMethod"]=="Mailed check"]

p2["TotalCharges"].describe()
```

```
count    0.0
mean     NaN
std      NaN
min      NaN
25%      NaN
50%      NaN
75%      NaN
max      NaN
Name: TotalCharges, dtype: float64
```

```
data["PaymentMethod"].unique()
```

```
array(['Electronic check', 'Mailed check', 'Bank transfer (automatic)',
       'Credit card (automatic)'], dtype=object)
```

```
p1=datade[data["PaymentMethod"]=="Electronic mail"]
p1["TotalCharges"].describe()
```

```
count    0.0
mean     NaN
std      NaN
min      NaN
25%      NaN
50%      NaN
75%      NaN
max      NaN
Name: TotalCharges, dtype: float64
```