

## Stat 341

## Titanic example in R

```
> titanic = read.table("Titanic.txt",header=T,sep=" ")
> names(titanic)
[1] "Class"      "Age"        "Sex"        "Survival"
```

```
> t1 = table(titanic$Class)
```

```
> t1
```

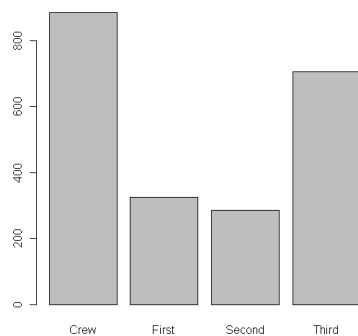
```
   Crew  First Second  Third
   885   325   285   706
```

```
> pt1 = prop.table(t1)
```

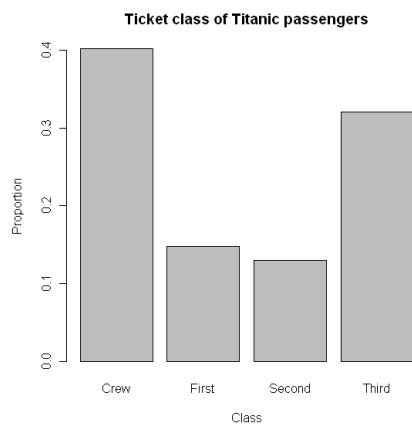
```
> pt1
```

```
   Crew      First      Second      Third
0.4020900 0.1476602 0.1294866 0.3207633
```

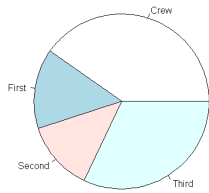
```
> barplot(t1)
```



```
> barplot(pt1,xlab="Class",ylab="Proportion",main="Ticket class of Titanic passengers")
```



```
> pie(t1)
```



```
> t2 = table(titanic$Class,titanic$Survival)
> t2
```

	Alive	Dead
Crew	212	673
First	203	122
Second	118	167
Third	178	528

```
> prop.table(t2)
```

	Alive	Dead
Crew	0.09631985	0.30577010
First	0.09223080	0.05542935
Second	0.05361199	0.07587460
Third	0.08087233	0.23989096

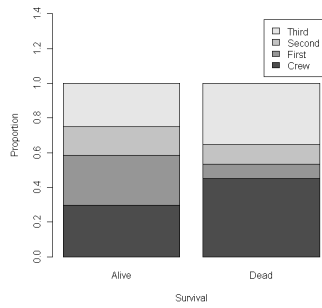
```
> prop.table(t2,1)
```

	Alive	Dead
Crew	0.2395480	0.7604520
First	0.6246154	0.3753846
Second	0.4140351	0.5859649
Third	0.2521246	0.7478754

```
> prop.table(t2,2)
```

	Alive	Dead
Crew	0.2981716	0.4516779
First	0.2855134	0.0818792
Second	0.1659634	0.1120805
Third	0.2503516	0.3543624

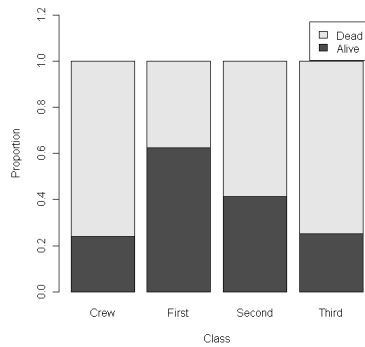
```
> barplot(prop.table(t2,2),ylim=c(0,1.4),legend.text=T,xlab="Survival",
ylab="Proportion")
```



```
> t3 = table(titanic$Survival,titanic$Class)
> prop.table(t3,2)
```

	Crew	First	Second	Third
Alive	0.2395480	0.6246154	0.4140351	0.2521246
Dead	0.7604520	0.3753846	0.5859649	0.7478754

```
> barplot(prop.table(t3,2),ylim=c(0,1.2),legend.text=T,xlab="Class",
ylab="Proportion")
```



```
> barplot(prop.table(t3,2),ylim=c(0,1),beside=T,legend.text=T,
xlab="Class",ylab="Proportion")
```

