

# cancer

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cancer

reference:

- Cannon, et al., Stat2, chapter 07, example 7.12

Import the data.

```
data <- read.csv("CancerSurvival.CSV", header=TRUE)
head(data)
```

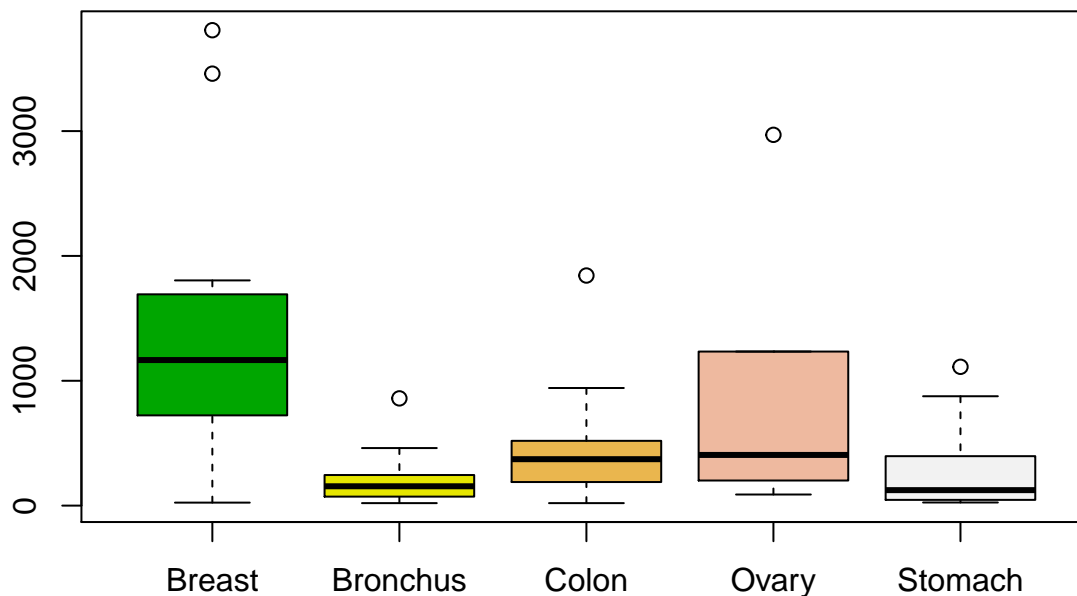
```
##   Survival   Organ
## 1     124 Stomach
## 2      42 Stomach
## 3      25 Stomach
## 4      45 Stomach
## 5     412 Stomach
## 6      51 Stomach
```

```
dim(data)
```

```
## [1] 64  2
```

Boxplots.

```
boxplot(Survival ~ Organ, data=data, col=terrain.colors(5))
```



Kruskal-Wallis test.

```
kruskal.test(Survival ~ Organ, data=data)
```

```
##  
## Kruskal-Wallis rank sum test  
##  
## data: Survival by Organ  
## Kruskal-Wallis chi-squared = 14.954, df = 4, p-value = 0.004798
```

Sample sizes and medians.

```
med <- with(data, tapply(Survival, Organ, median))  
n <- with(data, tapply(Survival, Organ, length))  
cbind(n,med)
```

```
##           n  med  
## Breast   11 1166  
## Bronchus 17  155  
## Colon    17  372  
## Ovary     6  406  
## Stomach  13  124
```