Using Sweave

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1 Reading in data

```
data <- read.csv("../input/speeds.csv")
summary(data)
```

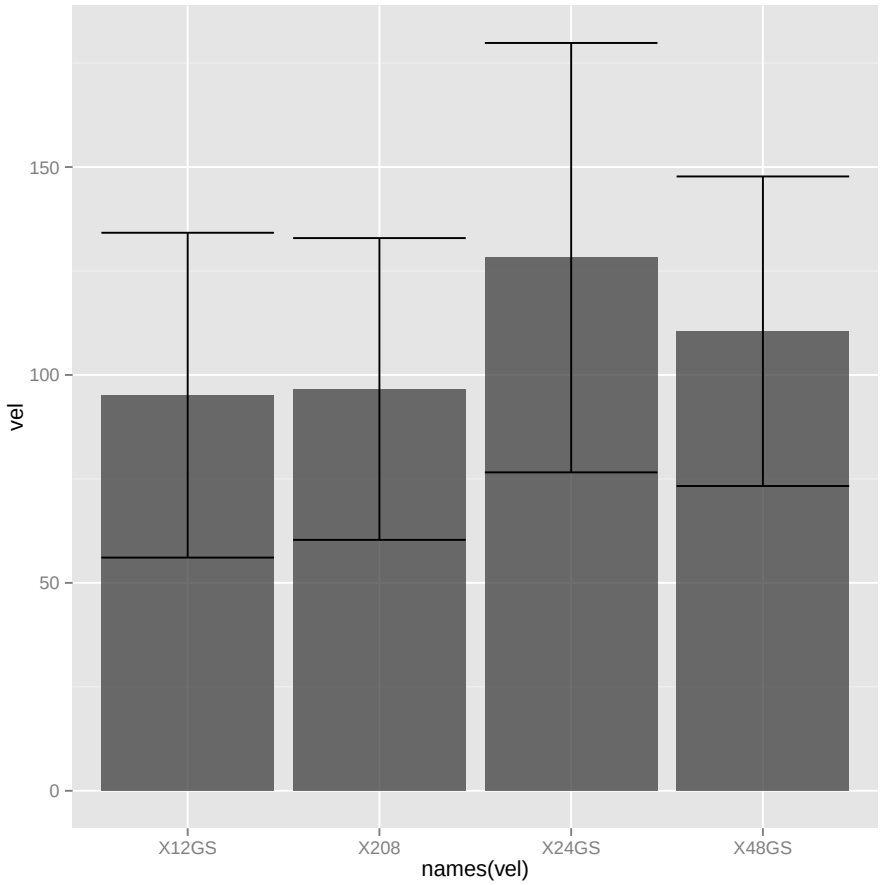
```
##       X208           X12GS           X24GS           X48GS      
##  Min.   : 12.1   Min.   : 24.0   Min.   :  8.92   Min.   : 10.3  
##  1st Qu.: 74.5   1st Qu.: 69.0   1st Qu.:101.27   1st Qu.: 90.5  
##  Median : 94.8   Median : 92.1   Median :129.30   Median :107.5  
##  Mean   : 96.6   Mean   : 95.1   Mean   :128.21   Mean   :110.5  
##  3rd Qu.:118.5   3rd Qu.:122.1   3rd Qu.:157.29   3rd Qu.:131.9  
##  Max.   :186.7   Max.   :211.5   Max.   :258.60   Max.   :232.7  
##                  NA's   :17      NA's   :154      NA's   :171
```

```
t.test(data$X24GS, data$X208)
```

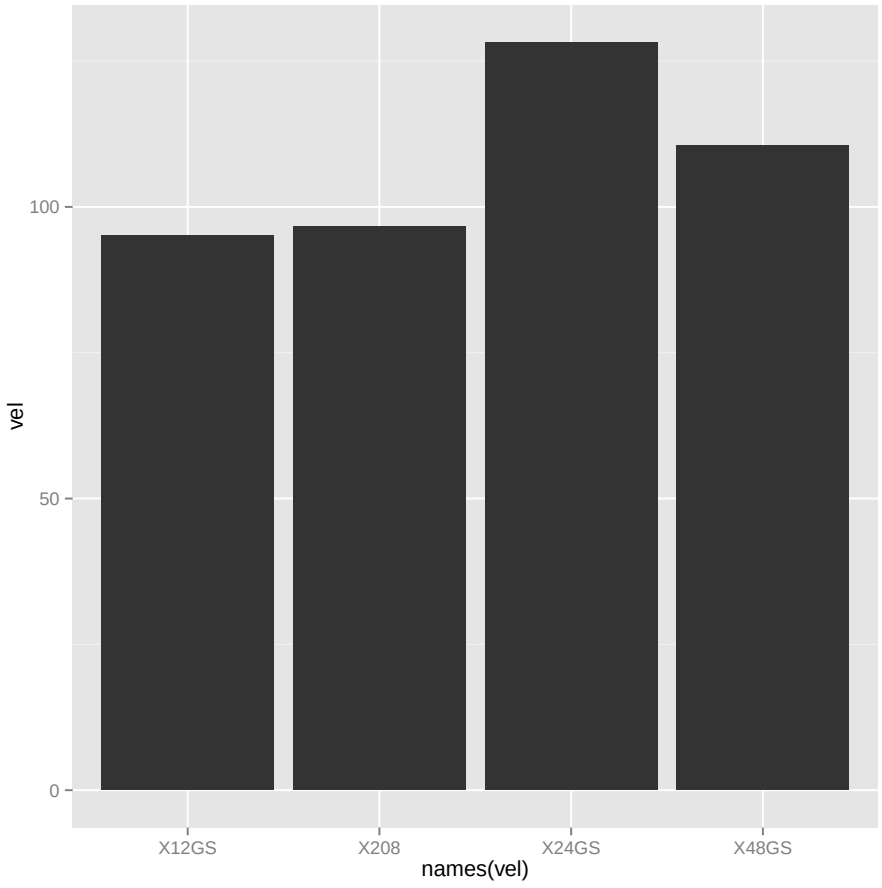
```
##
##  Welch Two Sample t-test
##
## data:  data$X24GS and data$X208
## t = 6.209, df = 182.7, p-value = 3.49e-09
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  21.55 41.61
## sample estimates:
## mean of x mean of y
##    128.21     96.63
```

2 Plotting

```
library(ggplot2)
ggplot() + geom_bar(aes(x = names(vel), y = vel), stat = "identity", alpha = 0.7) +
    geom_errorbar(aes(x = names(vel), ymax = vel + sd, ymin = vel - sd))
```

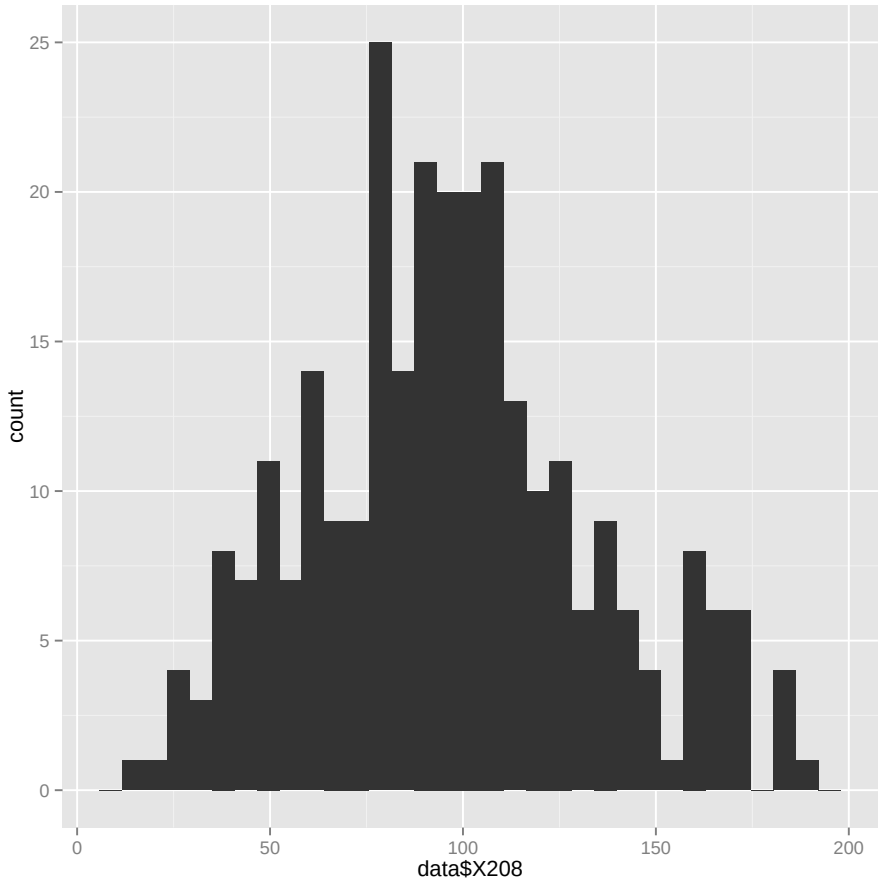



```
qplot(names(vel), vel, geom = "bar", stat = "identity")
```




```
ggplot(data = data) + geom_histogram(aes(x = data$X208))

## stat_bin:  binwidth defaulted to range/30.  Use 'binwidth = x' to
adjust this.
```


25
20
15
10
5
0
count
0
50
100
150
200
data$X208