

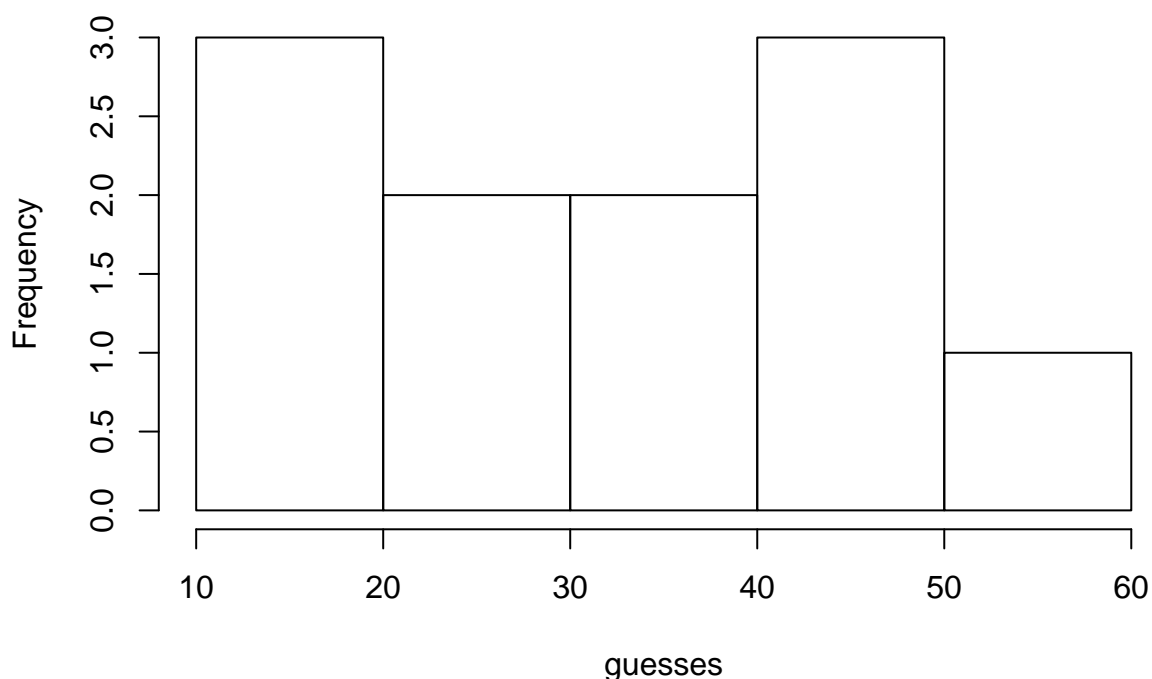
Notes_Apr_2019

Study 1

Each person tried to guess 65% of the average of all guesses.

```
names = c("Juan Pablo", "Albina", "Garima", "Judith",  
          "Grabiell", "Jose", "Kilsy", "Jostel", "Aelen",  
          "Polyanne", "Wenjian")  
guesses = c(40,50,43,60,20,15,30,45,30,20,40)  
hist(guesses)
```

Histogram of guesses



```
summary(guesses)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.   
##  15.00  25.00   40.00   35.73  44.00   60.00
```

```
mean(guesses)
```

```
## [1] 35.72727
```

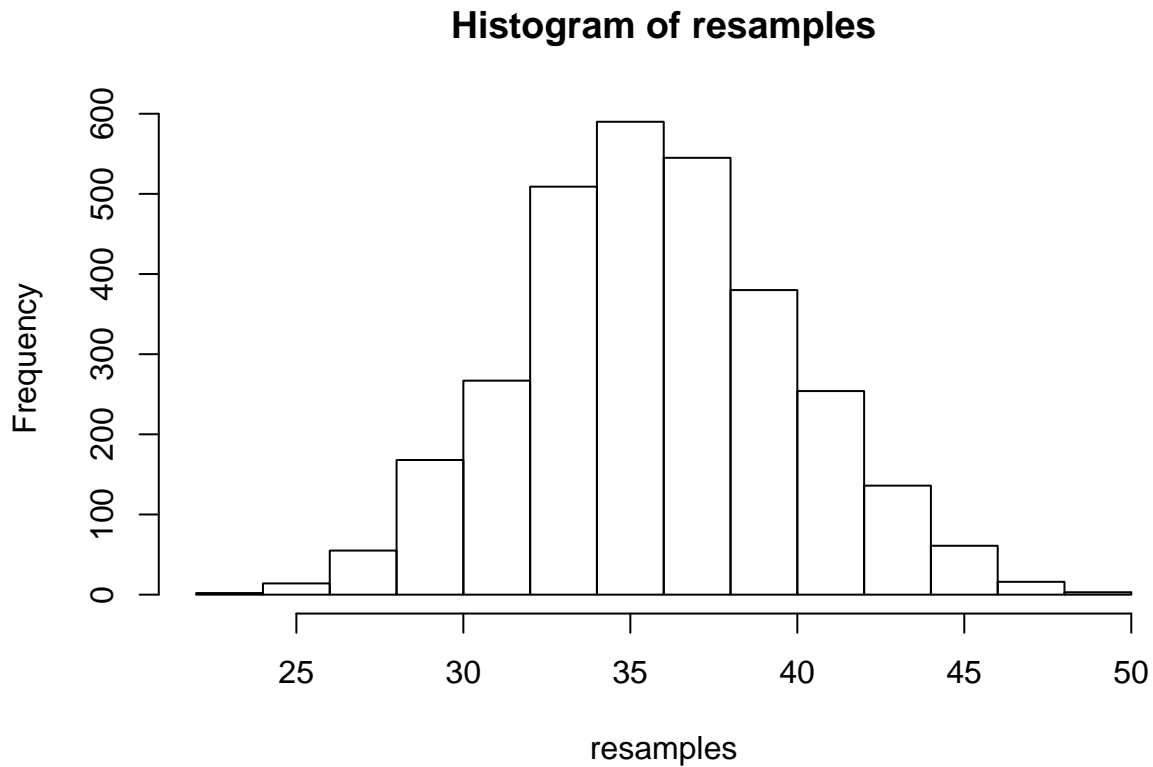
```
sd(guesses)
```

```
## [1] 13.9935
```

Determine a confidence interval of the population mean. We can simulate resampling by pulling 11 draws (with replacement) from the guesses, and resampling thousands of times.

```
resamples = c()  
for(i in 1:3000){  
  resamples = c(resamples, mean(sample(guesses,11,replace=T)))  
}
```

```
}  
hist(resamples)
```



```
summary(resamples)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.   
##  22.73   33.00   35.73   35.82   38.55   49.09
```

```
mean(resamples)
```

```
## [1] 35.82467
```

```
sd(resamples) #This is approx SE
```

```
## [1] 4.058995
```

Also, calculate the standard error using the formula.

$$SE = \frac{s}{\sqrt{n}}$$

```
SE=sd(guesses)/sqrt(length(names))  
SE
```

```
## [1] 4.219201
```

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.