Calculations notebook

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Pre calculations

In the pre trail we have 20 total obs. Load the pre data:

```r
library(readxl)
preData <- read_excel("C:/Users/Benja/dev/grid-world/Results/data.xlsx",
    sheet = "Initial", col_types = "numeric")
```

The means of them:

```r
mean(preData$gamma_0.8)
```

```
## [1] 138.9
```

```r
mean(preData$gamma_0.9)
```

```
## [1] 140.2
```

And the standard deviation

```r
sd(preData$gamma_0.8)
```

```
## [1] 5.021067
```

```r
sd(preData$gamma_0.9)
```

```
## [1] 3.823901
```

We will use the above information in a power analysis, to calcualte how many observations our final experiment requires.

```r
power.t.test(power=0.8, delta = 1, sd = 5, sig.level = 0.05)
```

```
##
##      Two-sample t test power calculation
##
##              n = 393.4067
```

```
##            delta = 1
##               sd = 5
##        sig.level = 0.05
##            power = 0.8
##      alternative = two.sided
##
## NOTE: n is number in *each* group
```

So the we will make 400 observations pr. model.

Final calculations

Load the final data:

```
library(readxl)
finalData <- read_excel("C:/Users/Benja/dev/grid-world/Results/data.xlsx",
    sheet = "Final", col_types = "numeric")
```

Find the mean:

```
colMeans(finalData)
```

```
## gamma_0.18  gamma_0.2  gamma_0.3  gamma_0.4  gamma_0.5  gamma_0.6  gamma_0.7
##         NA   140.0775   140.3350   140.6025   139.6500   140.0975   140.2300
## gamma_0.8  gamma_0.9
##   139.7775   140.2275
```