

## Homework 1

### Statistics for Linguistics

#### Part 1

```
1. (1/3) + (1/4)
2. (2^10) + 1
3. f <- 440
   1127 * log(1 + (f / 700))
4. a <- 2
   b <- 4
   c <- -4
   (-b + sqrt(b^2 - (4 * a * c))) / (2 * a)
```

#### Part 2

```
Labov <- read.csv("http://wellformedness.com/courses/LING82100/Data/NYC.csv")
table(Labov)
```

Total: 35 (Klein's 6, Macy's 13, Saks 16)

```
33 + 7 + 59 + 5
12 / 104
```

```
[1] 104
[1] 0.1153846
```

Answer: 11.54%

#### Part 3

```
Casillas <- read.table("http://wellformedness.com/courses/LING82100/Data/VOT.tsv", header =
TRUE)
print(Casillas)
quantile(Casillas$vot)
```

```
      0%      25%      50%      75%     100%
-85.290 -17.975  13.825  27.365  82.860
```

```
mean(Casillas[Casillas$language == "spanish",]$vot)
```

```
[1] -24.31306
```

```
sd(Casillas[Casillas$language == "english",]$vot)
```

```
[1] 19.86479
```