```
#ARITHMETIC

#1 Fractions
(1/3) + (1/4)
#or
f = 1/3
g = 1/4
f + g
#The answer is 0.58

#2 Exponents
(2^10) + 1
#or
k = 2
r = 1
(k^10) +r
#The answer is 1025

#3 Hz to Mel
f = 440
1127*log(1+f/700)
#The answer is 549.64

#4 Quadratic Equation
a =2
b = 4
c = -4
(-b + sqrt(b^2-4*a*c))/(2*a)
#The answer is 0.73

#CATEGORICAL DATA

NYCENG <- read.csv('http://wellformedness.com/courses/LING82100/Data/NYC.csv')
table(NYCENG)

#1
#The table breaks down fouRth and floor for us. When you go to the Emphatic
#fouRth table, and look at the (1) Row (presents of R) Kelin's is 6, Macy's (13)
#and Saks (16)
6 + 13 + 16
#The answer is 35

#2
#For this question we look at "floor" in both the Emphatic and Normal table.
# We again look at the (1) Row (presents of R) and total the 7 from Emphatic
#and 5 from Normal, totaling 12. #We then divide that by the total times the
#word was said in both conditions.
33 + 7 + 59 + 5
(12/104) * 100
#The answer is 11.54%


#RATIO DATA
```

```
VOT <- read.table('http://wellformedness.com/courses/LING82100/Data/VOT.tsv',
header = TRUE)
print(VOT)

#1
quantile(VOT$vot)
# 0% = -85.290, 25%= -17.975, 50%= 13.825, 75%=  27.365, 100%=  82.860

#2
spanishVOT <- subset(VOT, language=="spanish")
print(spanishVOT)
mean(spanishVOT$vot)
#The answer is -24.31

#3
englishVOT <- subset(VOT, language=="english")
print(englishVOT)
sd(englishVOT$vot)
#The answer is 19.86
```