#Ryan Allison

#Assignment 1

#Problem 1

a=5

b=7

a+b

b/a

rm(list=ls()) #clears previously defined variables/objects in order to answer 1e.

b/a

7/5

a=5

b=7

a<5

b<5

a=5

b=5

a>5

b>5

#Problem 2

help(rep)

rep(c(2,6,10,14,18), each=3)

rep(c('2,6,10,14,18'), each=3)

rep(c(2,6,10,14,18), each=3, len=17)

#Problem 3

v<-c(2,6,10,14,18)

v

sum(v)

sqrt(v)

#Problem 4

x<-seq(10,20,0.1)

x

y<-log(x)

y

barplot(x,y)

y[30]

y[30:35]

y[50:60]

#Problem 5

percentage<-c(72,81,52,63)

percentage

names(percentage)<-c("County A", "County B", "County C", "County D")

percentage

barplot(percentage)

mean(percentage)

sd(percentage)

**Output:**

R version 3.3.2 (2016-10-31) -- "Sincere Pumpkin Patch"

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Platform: x86\_64-apple-darwin13.4.0 (64-bit)

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Type 'q()' to quit R.

[Workspace loaded from ~/.RData]

> #Ryan Allison

> #Assignment 1

>

> #Problem 1

> a=5

> b=7

> a+b

[1] 12

> b/a

[1] 1.4

> rm(list=ls()) #clears previously defined variables/objects in order to answer 1e.

> b/a

Error: object 'b' not found

> 7/5

[1] 1.4

> a=5

> b=7

> a<5

[1] FALSE

> b<5

[1] FALSE

> a=5

> b=5

> a>5

[1] FALSE

> b>5

[1] FALSE

> #Problem 2

> help(rep)

> rep(c(2,6,10,14,18), each=3)

[1] 2 2 2 6 6 6 10 10 10 14 14 14 18 18 18

> rep(c('2,6,10,14,18'), each=3)

[1] "2,6,10,14,18" "2,6,10,14,18" "2,6,10,14,18"

> rep(c(2,6,10,14,18), each=3, len=17)

[1] 2 2 2 6 6 6 10 10 10 14 14 14 18 18 18 2 2

> #Problem 3

> v<-c(2,6,10,14,18)

> v

[1] 2 6 10 14 18

> sum(v)

[1] 50

> sqrt(v)

[1] 1.414214 2.449490 3.162278 3.741657 4.242641

> #Problem 4

> x<-seq(10,20,0.1)

> x

[1] 10.0 10.1 10.2 10.3 10.4 10.5 10.6 10.7 10.8 10.9 11.0 11.1 11.2 11.3 11.4 11.5 11.6 11.7 11.8 11.9 12.0 12.1

[23] 12.2 12.3 12.4 12.5 12.6 12.7 12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.5 13.6 13.7 13.8 13.9 14.0 14.1 14.2 14.3

[45] 14.4 14.5 14.6 14.7 14.8 14.9 15.0 15.1 15.2 15.3 15.4 15.5 15.6 15.7 15.8 15.9 16.0 16.1 16.2 16.3 16.4 16.5

[67] 16.6 16.7 16.8 16.9 17.0 17.1 17.2 17.3 17.4 17.5 17.6 17.7 17.8 17.9 18.0 18.1 18.2 18.3 18.4 18.5 18.6 18.7

[89] 18.8 18.9 19.0 19.1 19.2 19.3 19.4 19.5 19.6 19.7 19.8 19.9 20.0

> y<-log(x)

> y

[1] 2.302585 2.312535 2.322388 2.332144 2.341806 2.351375 2.360854 2.370244 2.379546 2.388763 2.397895 2.406945

[13] 2.415914 2.424803 2.433613 2.442347 2.451005 2.459589 2.468100 2.476538 2.484907 2.493205 2.501436 2.509599

[25] 2.517696 2.525729 2.533697 2.541602 2.549445 2.557227 2.564949 2.572612 2.580217 2.587764 2.595255 2.602690

[37] 2.610070 2.617396 2.624669 2.631889 2.639057 2.646175 2.653242 2.660260 2.667228 2.674149 2.681022 2.687847

[49] 2.694627 2.701361 2.708050 2.714695 2.721295 2.727853 2.734368 2.740840 2.747271 2.753661 2.760010 2.766319

[61] 2.772589 2.778819 2.785011 2.791165 2.797281 2.803360 2.809403 2.815409 2.821379 2.827314 2.833213 2.839078

[73] 2.844909 2.850707 2.856470 2.862201 2.867899 2.873565 2.879198 2.884801 2.890372 2.895912 2.901422 2.906901

[85] 2.912351 2.917771 2.923162 2.928524 2.933857 2.939162 2.944439 2.949688 2.954910 2.960105 2.965273 2.970414

[97] 2.975530 2.980619 2.985682 2.990720 2.995732

> barplot(x,y)

> y[30]

[1] 2.557227

> y[30:35]

[1] 2.557227 2.564949 2.572612 2.580217 2.587764 2.595255

> y[50:60]

[1] 2.701361 2.708050 2.714695 2.721295 2.727853 2.734368 2.740840 2.747271 2.753661 2.760010 2.766319

> #Problem 5

> percentage<-c(72,81,52,63)

> percentage

[1] 72 81 52 63

> names(percentage)<-c("County A", "County B", "County C", "County D")

> percentage

County A County B County C County D

72 81 52 63

> barplot(percentage)

> mean(percentage)

[1] 67

> sd(percentage)

[1] 12.40967

