Week 1 Assignment

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September 11, 2016

1.0 Open R. The first line of text in the console window tells you which version of R you are running (this should be version 3.1.2). Copy this line of text into a document, to verify that you’ve installed the correct version.

R version 3.3.1 (2016-06-21) -- "Bug in Your Hair" Copyright (C) 2016 The R Foundation for Statistical Computing Platform: x86\_64-w64-mingw32/x64 (64-bit)

Note that this is newer than 3.1.2. Hopefully this won't be an issue for the class.

1.1 Calculate the cube root of 2015, as follows: 2015^(1/3)

2015^(1/3)

## [1] 12.63063

1.2 Find the absolute value of 5.7 minus 6.8 divided by .58: abs(5.7-6.8)/.58

abs(5.7-6.8)/.58

## [1] 1.896552

1.3 Create a list of integers from 1 to 12 and call it “a”: a = 1:12 a #(this will print a, so you can paste it into your homework; do this each time)

a = 1:12  
a

## [1] 1 2 3 4 5 6 7 8 9 10 11 12

1.4 Create a sequence of odd numbers from 1 to 11: b = c(1, 3, 5, 7, 9, 11) b

b = c(1, 3, 5, 7, 9, 11)  
b

## [1] 1 3 5 7 9 11

1.5 Create the same sequence in another way: c = seq(1,11, 2) c

c = seq(1,11, 2)  
c

## [1] 1 3 5 7 9 11

1.6 Take the natural log (ln) of a. (Note that this is done to the entire “vector” called a.) ln.a = log(a) ln.a

ln.a = log(a)  
ln.a

## [1] 0.0000000 0.6931472 1.0986123 1.3862944 1.6094379 1.7917595 1.9459101  
## [8] 2.0794415 2.1972246 2.3025851 2.3978953 2.4849066

1.7 Compute the squares of the odd numbers from 1 to 11.

b^2

## [1] 1 9 25 49 81 121

1.8 Use ?sd to view the help file for the sd function. What does it do?

sd computes the standard deviation of the values in x.

1.9. Create a variable Name that contains your first name. Because your name is a character string, not a number, you will need to put it in quotes so that R knows not to go looking for a variable with that name: Name = "Susan" Then type paste("My name is", Name)

Name <- "Dave"  
paste("My name is", Name)

## [1] "My name is Dave"

1.10 When you shut down R, R will ask if you want to save the workspace image. Always choose no.