ANT 3405 HW#1

a. How can you send a command from the Source pane to the Console Pane? If you are having trouble with this look for the ‘run’ button or see the Installing R handout from week one. (fun R fact: Source is actually the function!)

-Type it out in the source box and then press the run button near the upper right corner to send it to the console pane.

b. What would be the code to add 9 and 1?

-9 + 1

c. What would be the code to add 365 and 1986

-365 + 1986

solve the following programmatically using R in your script. Be sure to save as you go.

a. 3-4

- 3 – 4=-1

b. 7 divided by 10

- 7 / 10=.7

c. 6 times 89

- 6 \* 89=534

d. 8 raised to the 7th power

- 8 ^ 7=2097152

e. the square root of 52

- sqrt(52)=7.211103

solve the following programmatically using R

a. How would you create a name y and assign it the value 334?

- y <- 334

b. how would you add the x and y together to get the sum of the two numbers?

- x + y

c. how would you create a new variable (z) that stores the result of x +y

- z <- 376

d. now, change the value of x to be 500 and see what happens when you add x + y together? if you ask for the value of z now what do you get? why?

- x + y=834, the value of z remains at 376 because I didn’t reassign the number associated with z with 500.

e. what are the rules for what the name of an object in R can be? This can be found by searching online or using the R help function

- Names must start with either a letter or a dot, contain only numbers, letters, underscore characters and dots, and you can’t use certain keywords in names.

a. how would you get the sex of the third skeleton?

- my\_study[3]

c. can you figure out how, in one line of code, to get the sex of the 1st and 4th skeleton?

- my\_study[1,4]

a. how would you make a matrix by row rather than column (use google if need be)

-Flip the script

c. now, create your own matrix with made up data…give the code you used to make this

- freq <- c(28,15,12,3, 30,44,55,20, 8,2,5,3, 4,4,25,17)

- genre <- c("horror", "comedy", "drama", "documentaries")

- major <- c("biology"," journalism", "psychology", "engineering")

- freqmat <- matrix(freq, nr=4, nc=4, byrow=TRUE)

- dimnames(freqmat)[[1]] <- genre

- dimnames(freqmat)[[2]] <- major

- freqmat

a. run the code below. it should show an error on step 4. Why? rewrite the code so it works!

- The code does not work initially because there are not enough numbers. Run the code as num <- c(1,2,3,4,5,6) to get it to work.

b. what is the class type of the different vectors in the my\_sample dataframe?

- Number would be an integer; food would be a character and quantity would be a factor.

a. is a bigger than b?

- No

b. is c equal to d (careful with this one..)

- Yes

c. is c less than or equal to b?

- Yes

d. make a new vector called temp with the values of 1,5,7,9,11,14,6,8. then write a single line of code that evaluates if 3 is greater than each of the values in the vector

- 3 > temp

e. how would you ask R if the 5th value in temp is larger than 5?

- 11 > 5

1. What the most challenging part of this homework?

- Figuring out what each type of object is and solving it in R. The stuff with the matrix thing was also harder for me to understand.

2. What could be more clear? What info might be helpful to include?

- I think this was made as clearly as I think it could be.

3. After sitting with this, do you think you have a better idea of what R is all about?

- Yes, I feel like I have a stronger understanding of R and how to use it, but I think I will need more practice to feel confident.

4. Probably the most awful thing about R are the classes. If you had to explain what a class was how would you do that?

- A class is how R categorizes data

5. Now that we have an idea of how R thinks, next week we are gonna talk a bit about how to store data. Based on what you now know, what might be good practices for recording data on a spreadsheet so that others can use them?

- Recording them in rows and columns so the data is organized and easy to read and translate into a script. Having clear categories.