

Quiz #1

Name: ANSWER KEY

**Note:** the questions are randomly generated so these may (not) exactly match those on your paper. The answers below are for *these* and if you have trouble seeing the connection between these and those, ask me.

1. Describe the data types represented by the variables below. Tell me everything you can about them.
  - (a) Education level (High school diploma, Bachelor's degree, Master's degree, Doctorate)
  - (b) Number of pigeons perched on a power line directly outside
  - (c) Whether or not a child has dimples

**Answers:**

- (a) qualitative, ordinal, with the four levels listed above
  - (b) quantitative, discrete, possible values are integers from zero to infinity
  - (c) qualitative, nominal, with two levels: yes and no
2. The following data represent the number of emails received in the last 24 hours by 24 individuals.
    - (a) Make a basic relative frequency histogram of the following data, by hand (you are going to need a frequency table, etc). Make a bin for each unique value.
    - (b) Tell me what the histogram tells you about the data.

[1] 1 0 1 2 1 1 0 1 1 0 0 8 0 1 3 0 2 0 2 3 0 0 3 0

**Answers:**

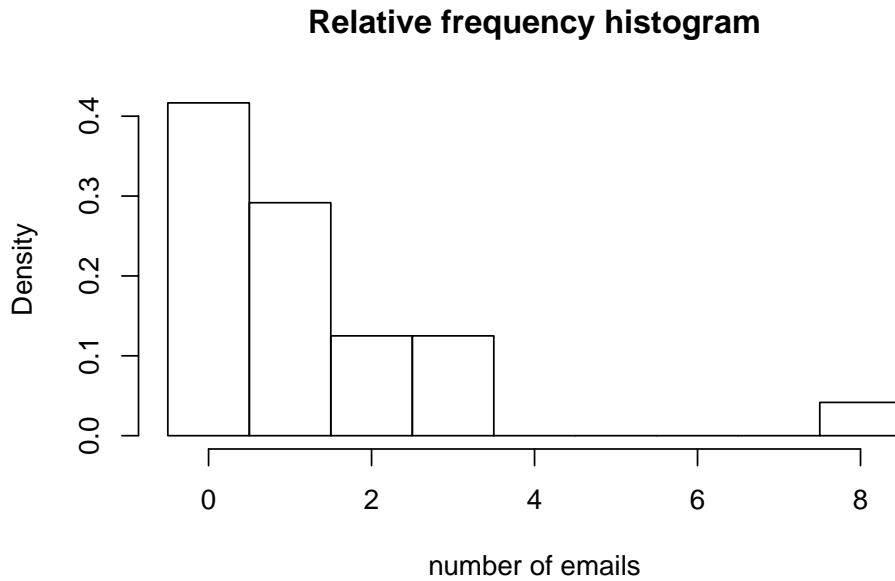
We would need to make a frequency table for the data, which would look something like this:

x					
	0	1	2	3	8
	10	7	3	3	1

And a relative frequency table would look like this:

x  
 0 1 2 3 8  
 0.41666667 0.29166667 0.12500000 0.12500000 0.04166667

So a relative frequency histogram as described would look like this:



Answers will vary when it comes time to describe the data distribution. We could say that the distribution is right-skewed, with a maximum value of 8 and a minimum value of 0. The center of the data would be around 1. There may or may not be extreme values (it looks there might be one for these data).