A) What is a scatterplot mainly used for? What type of variables are used in a scatterplot?
To determine association between quantitative variables.
B) If there is an explanatory/response association between variables, what axis should they be plotted on in a scatterplot?
Explanatory- x axis
Response- y axis
C) Draw an example of a scatterplot with a strong negative association.
See lecture notes.

3) Suppose we’re have the following set of data for some variable x: 1,2,3.
Suppose we’re have the following set of data for some variable y: 2,5,2.
A) What is the correlation between x and y (show all computations)?
\[ r = 0; \bar{x} = \frac{1+2+3}{3} = 2; \bar{y} = \frac{2+5+2}{3} = 3; s_x = 1; s_y = \sqrt{3} \]
B) Based on part A), is there a strong or weak association between x and y?
Weak.
C) More generally, what numbers is the correlation between?
-1 and 1.