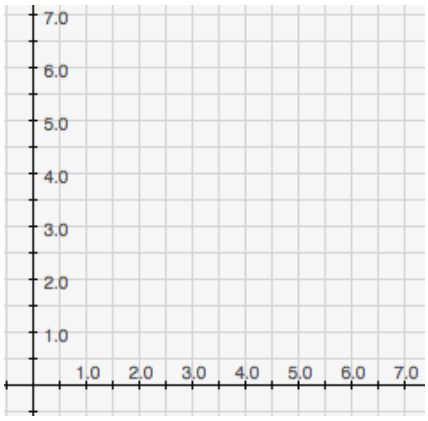
COSC150 ICA 25 Feb 2020 Name/Pledged_____

1. Consider a quadratic function in the form: $y(x) = 4(x-5)^2 + 2$
   a. Sketch the main features of this function near its vertex



   b. What is this function's "y-intercept"?

   c. If this same function were written in the form: $y(x) = ax^2 + bx + c$ what are ***a, b,*** and ***c***?

2. A model that has at least one element of randomness can be described as

_____

3. A model whose behavior depends solely on its parameter values and the initial conditions, yielding the same result each time, can be described as

_____

4. For the purposes of this course, define “investigation.” Where does the word “investigation” come from?

5. List at least four characteristics that transform any “investigation” into a “***scientific*** investigation”?

6. Consider a dataset from an experiment of large number (N) of independent observations. Briefly describe what each of the following ***measure*** or ***predict*** with respect to that dataset:

    a. Average

    b. Standard Deviation

    c. Standard Error