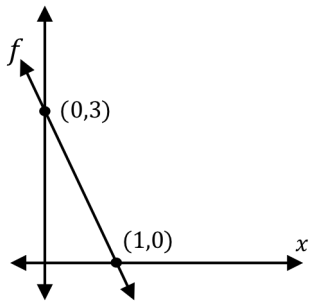
Name _____
Pd _____ Date _____

Throughout Algebra 1 you will be working with 4 ways to represent functions:

- Symbolically (an equation or function)
- Visually (a graph)
- Numerically (a table of values and ordered pairs)
- Descriptively (using words, often to represent a real world situation)

First, let's focus on the relationship between the symbolic representation (the equation) and the visual representation (the graph).

1. Function f graphed at the right is linear.



   a. The x-coordinate, (1, 0), tells us that f(1) = _____
   b. The y-coordinate, (0, 3), tells us that f(0) = _____
   c. Use the information from a and b (above) to determine which one of the following functions is the graph of f.

      i. $f(x) = \frac{-1}{3}x + 3$ ii. $f(x) = \frac{-1}{3}x + 1$

      iii. $f(x) = -3x + 1$ iv. $f(x) = -3x + 3$

   d. Explain how you determined your answer for question 1c (above).

   e. Verify that your answer for question 1c is correct by determining the values of f(0) and f(1) for the function you chose.

2. Determine the following values for the function $f(x) = \frac{1}{3}x - 5$.
   a. f(0) = _____ b. f(15) = _____ c. f(12) = _____

3. Use your answers from question 2 (above) to determine which one of the following graphs could be graph of $f(x) = \frac{1}{3}x - 5$.