Math Pretest
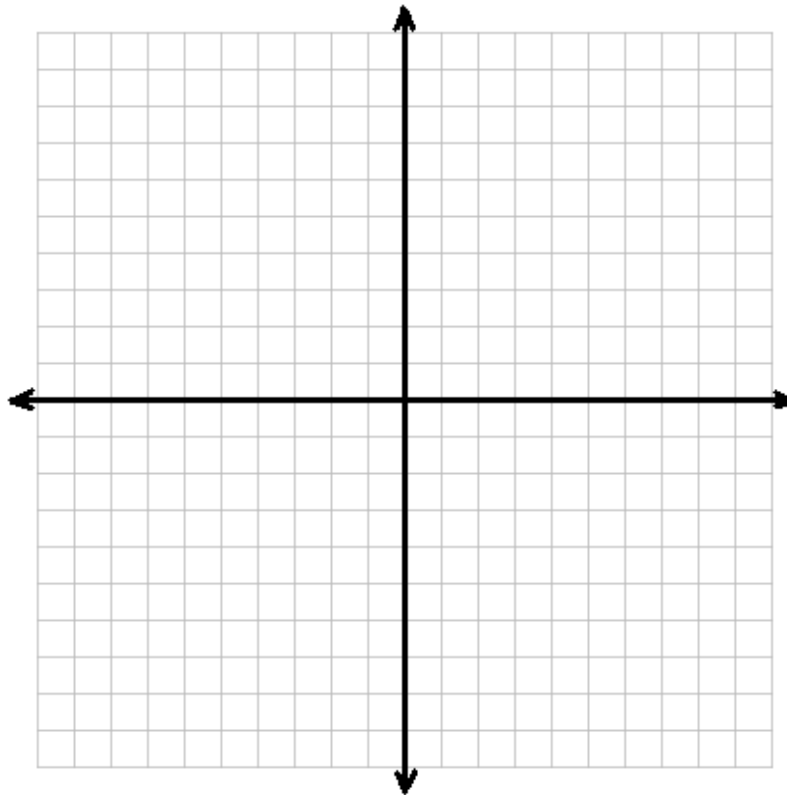
1. F(X) = 2X^3 + 4X + 13;

    a. What is F'(X)? (i.e. take the derivative of F(x))

    b. What is F'(x)? (Explain in words; 2-3 sentences max)

    c. What is F'(3)? (Give a numerical answer and explain this value in one sentence)

2. Draw a function which begins at the origin, increases at an increasing rate, reaches an inflection point and from there on out increases at a decreasing rate.

3. Solve this system of equations:

    5X + 3Y = 7
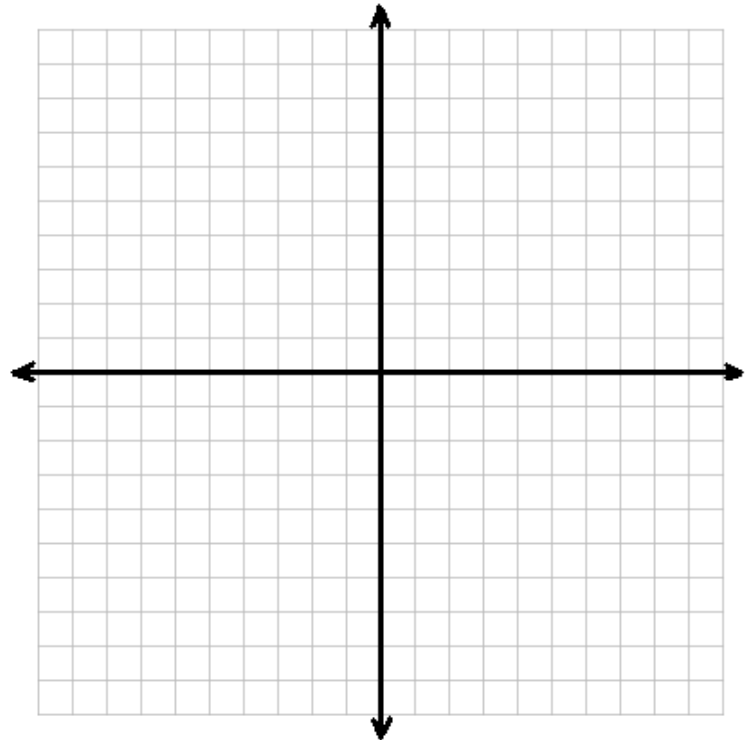   3X - 5Y = -23

    a. X = _____ Y = _____

4. Z = 2R + 7 and Y = 40 − R

    a. When Z and Y are equal, what is the value of R?

5. Draw a graph of the following equation, N = 10 - .5M. Put M on the vertical axis and N on the horizontal axis.

    a. What is the slope of this line?