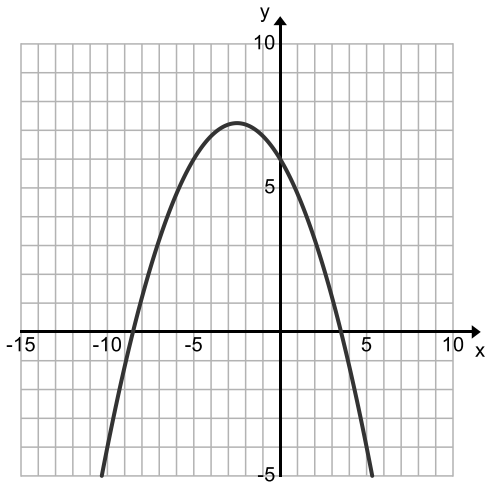
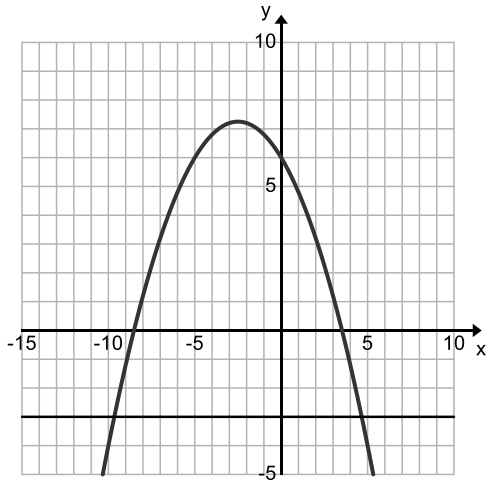
A. Set a window to match the axes shown and graph the quadratic function on your calculator:

$$y_1 = -0.2x^2 - x + 6 \quad \textbf{OR} \quad f_1(x) = -0.2x^2 - x + 6$$



1. My estimate the x-value for the vertex is _____.
    - Use your calculator to find the maximum of this function, rounded to nearest hundredth if necessary.
    - What are the coordinate of the vertex?
        - What is the equation for the axis of symmetry?
        - What is the range?
2. My estimate for the smallest of the x-intercepts is _____.
    - Use your calculator to find the smallest zero of this function (rounded to the nearest tenth).
3. My estimate for the largest of the x-intercepts is _____.
    - Use your calculator to find the largest zero of this function (rounded to the nearest tenth).
4. My estimate for the y-intercept is _____.
    - Use your calculator to find the y-intercept (rounded to the nearest tenth).

B. Graph a second function: $y_2 = -3$ OR $f_2(x) = -3$



a. Find the two x-values where the two functions "Intersect"

i. Smallest x-value, rounded to nearest tenth: ____

ii. Largest x-value, rounded to nearest tenth: ____

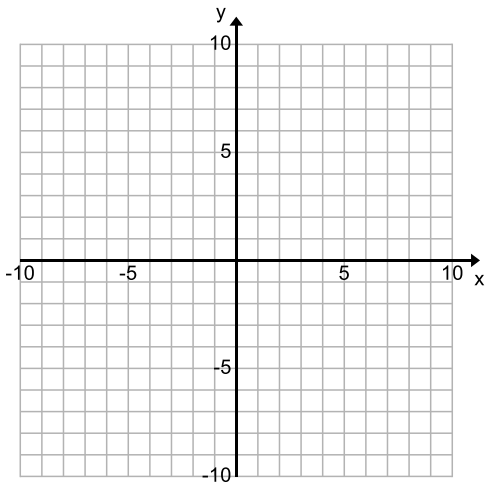
C. Use the data to find and equation and graph a quadratic function:

Window to match the given grid.

Regression Information:

a = *b =* *c =*

equation:



x	y
-7	-7
-6	0
-5	5
-4	8
-3	9
-2	8
-1	5
0	0
1	-7