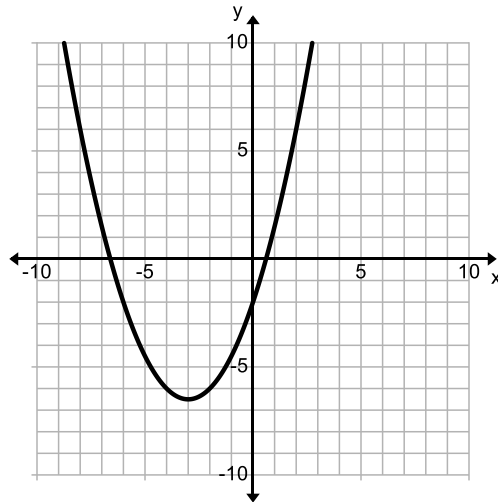


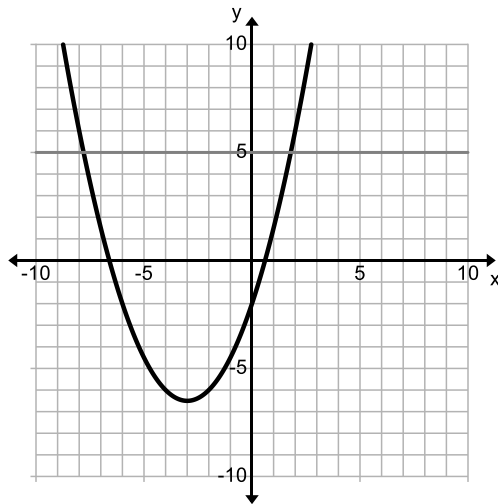
- A. Set a window to match the axes shown and graph the quadratic function on your calculator:

$$y_1 = 0.5x^2 + 3x - 2 \quad \text{OR} \quad f_1(x) = 0.5x^2 + 3x - 2$$



1. My estimate the x-value for the vertex is \_\_\_\_\_.
  - Use your calculator to find the minimum 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:  $y_2 = 5$  OR  $f_2(x) = 5$



- Find the two x-values where the two functions “Intersect”
  - Smallest x-value, rounded to nearest tenth: \_\_\_\_
  - Largest x-value, rounded to nearest tenth: \_\_\_\_

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

Window to match the given grid.

Regression Information:

$a =$              $b =$              $c =$

*equation:*

X (list 1)	Y (list 2)
-6	7
-5	0
-4	-5
-3	-8
-2	-9
-1	-8
0	-5
1	0
2	7

