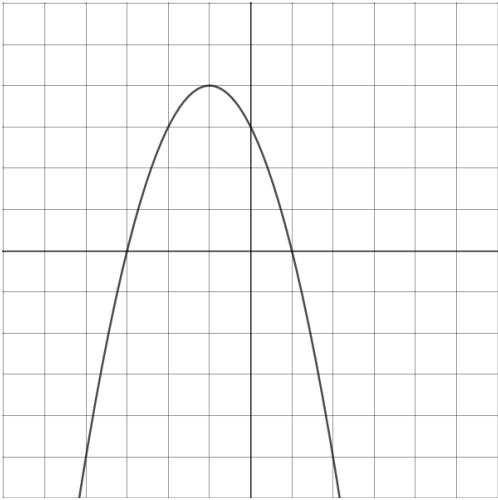


**Pre-Calculus 11: Graphing Quadratics Quiz***Full credit will only be awarded for all work shown in a neat and organized manner.*

For each graph below, identify the:

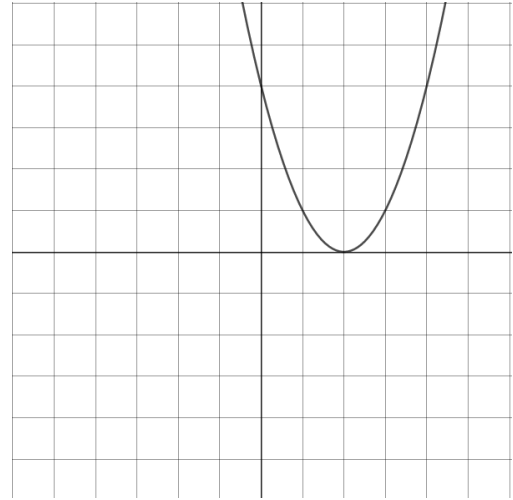
- a) y-intercept      b) x-intercept(s)      c) axis of symmetry      d) vertex      e) range

1.



- a) \_\_\_\_\_  
 b) \_\_\_\_\_  
 c) \_\_\_\_\_  
 d) \_\_\_\_\_  
 e) \_\_\_\_\_

2.



- a) \_\_\_\_\_  
 b) \_\_\_\_\_  
 c) \_\_\_\_\_  
 d) \_\_\_\_\_  
 e) \_\_\_\_\_

3. A quadratic can be described with the equation:  $f(x) = -2(x + 4)^2 - 5$ **DESCRIBE** how the graph would change in appearance if we changed  $f(x)$  to:

a)  $g(x) = \frac{1}{2}(x + 4)^2 - 5$

b)  $g(x) = -2(x + 8)^2 + 2$

4. A quadratic function has the vertex  $(-3, 5)$  and passes through the point  $(4, -7)$ .

a) Does the parabola open upwards or downwards? (**EXPLAIN** your answer)

b) Find another point on the quadratic function

For each quadratic below, identify:

a) y-intercept

b) x-intercept(s)

c) vertex

d) range

5.  $f(x) = -4x^2 + 4x + 15$

a) \_\_\_\_\_

b) \_\_\_\_\_

c) \_\_\_\_\_

d) \_\_\_\_\_

6.  $f(x) = \frac{1}{9}(x + 3)^2 + 1$

a) \_\_\_\_\_

b) \_\_\_\_\_

c) \_\_\_\_\_

d) \_\_\_\_\_