

Name: \_\_\_\_\_

Period: \_\_\_\_\_

### HW 95: Transformations Worksheet

For the given equation, state the parent function, transformations and the vertex point.

1.  $y = |x - 2|$

2.  $y = |x| + 3$

3.  $y = (x + 3)^2 - 1$

4.  $y = (x + 2)^2$

5.  $y = |x + 3| - 1$

6.  $y = |x + 8|$

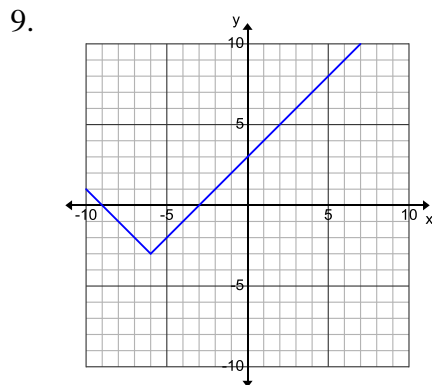
Write an equation for the absolute function described.

7. The parent function  $y = |x|$  is shifted up 3 units and right 2 units.

Equation:

8. The parent function  $y = x^2$  and the vertex is  $(-4, 5)$

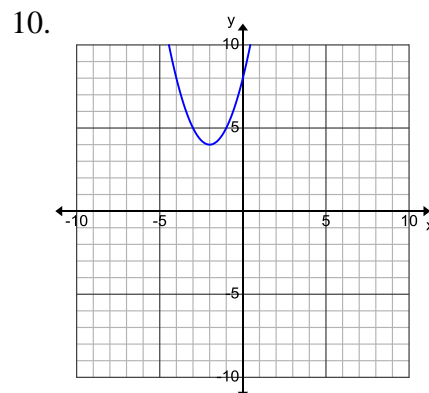
Equation:



a) Vertex:

b) Describe the transformation:

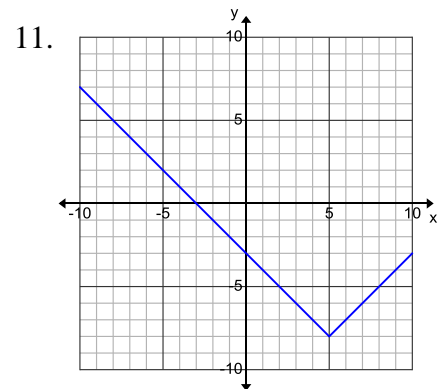
c) Equation:



a) Vertex:

b) Describe the transformation:

c) Equation:



a) Vertex:

b) Describe the transformation:

c) Equation:

Describe the transformation that is happening to the original function and then accurately sketch the function. Be sure to label the vertex of the graph and write the equation on the line.

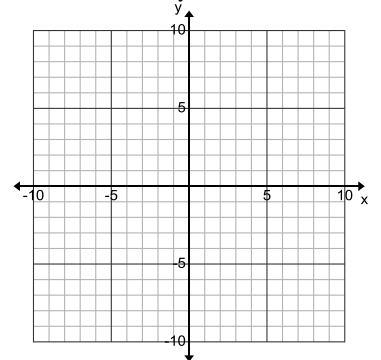
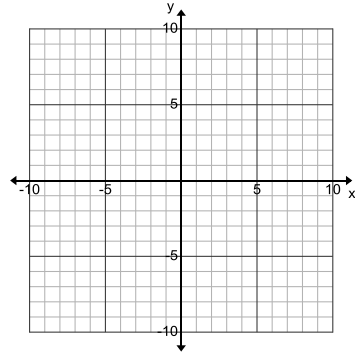
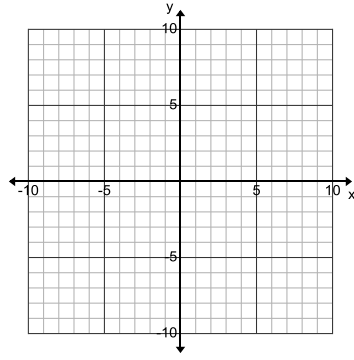
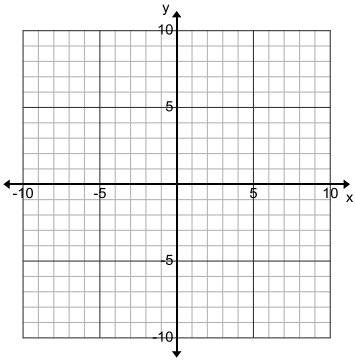
12.  $y = |x+3|$

13.  $y = (x-3)^2 - 2$

14.  $y = |x-6| - 1$

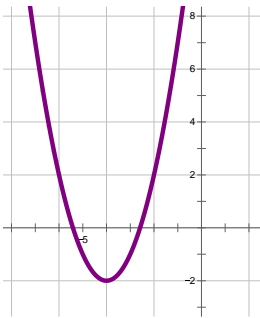
15.  $y - 4 = (x-2)^2$

\*hint solve for y alone

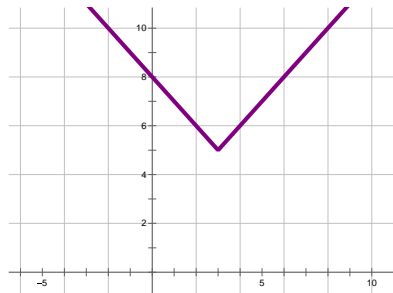


For each graph below describe the translation that has happened to it based on the original graph and then write an equation for this function.

16.



17.



18.

