

Name:

Date:

Hour:

Algebra 1  
Transforming Quadratics WS

Describe each transformation.

1.  $y = \frac{1}{2}(x-3)^2 + 1$

2.  $y = -(x+6)^2$

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

4.  $y = -\frac{3}{4}(x+2)^2 - 8$

5.  $y = (x-7)^2 + 10$

6.  $y = -5(x-12)^2 - 4$

Write a quadratic equation that represents each transformation.

7. Stretched by a factor of 3, reflected, vertex at (4, -2)

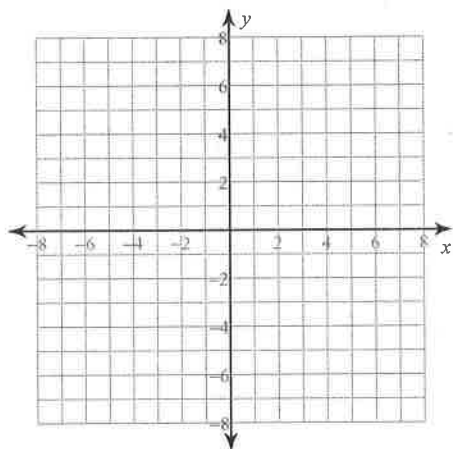
8. Vertex at (0, 5), wide

9. Shifted 3 units down and 4 units right, normal, reflected

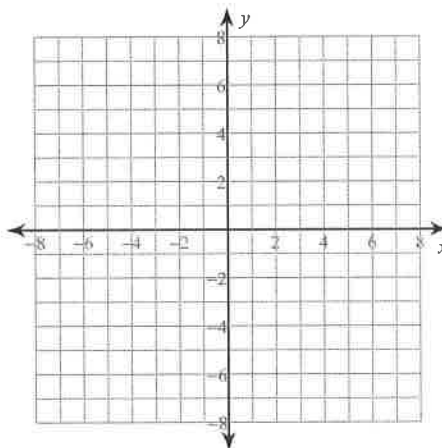
10. Compressed by a factor of  $\frac{1}{2}$ , vertex at (8, 1)

Graph each equation.

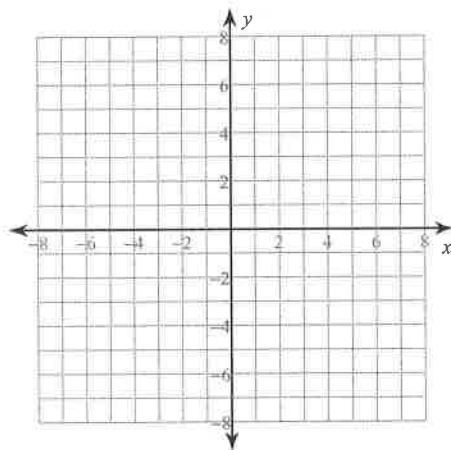
11)  $f(x) = x^2 + 2$



12)  $f(x) = -x^2 + 2x$



13)  $f(x) = x^2 - 2x$



14)  $f(x) = -x^2 + 1$

