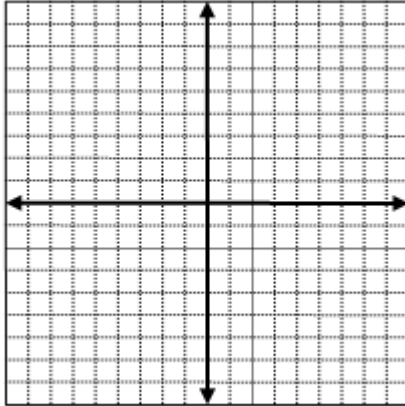


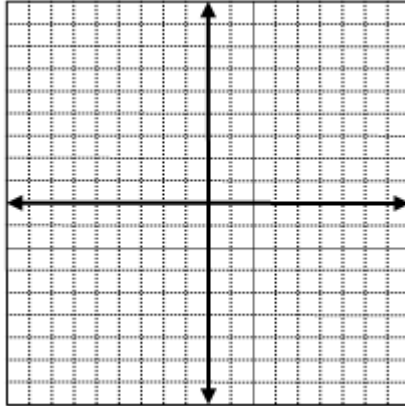
## Algebra II 5.3 Translating Parabolas

Graph each parabola.

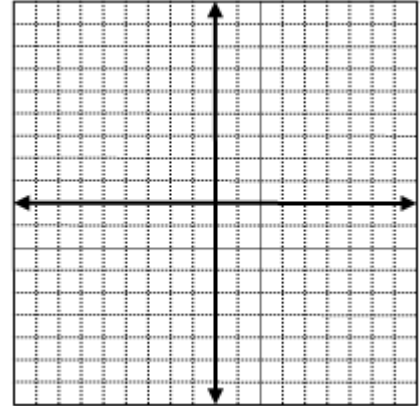
1.  $y = (x + 3)^2 - 4$



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



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



Write the equation of each parabola in vertex form.

4. vertex (1, 2) point (2, -5)

5. vertex (3, 6) y-intercept 2

6. vertex (-3, 6) point (1, -2)

7. vertex (-2, 6) y-intercept 12

8. vertex (-1, -4) y-intercept 3

9. vertex (0, 5) point (1, -2)

Write each equation in standard form.

10.  $y = (5x + 6)^2 - 9$

11.  $y = -(3x - 4)^2 + 6$

12.  $y = \frac{1}{2}(x - 6)^2 + 5$

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

Find the vertex and the y-intercept of the graph of each function.

14.  $y = -(x - 4)^2 - 25$

15.  $y = 6(x + 3)^2 - 2$

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

17.  $y = (x - 125)^2 + 125$