

Section 7.5, 7.6, and 7.7 Quiz Review

Date _____ Period _____

Identify the vertex and axis of symmetry of each and then sketch the parabola.

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

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

3) $y - 10 = (x + 2)^2$

4) $y + 6 = 3(x - 8)^2$

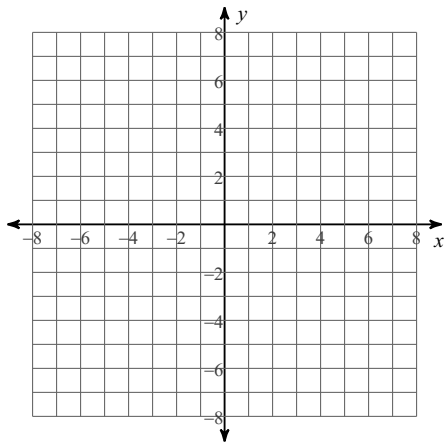
Write the equation $y - k = a(x - h)^2$ for each parabola described.

5) Vertex: $(-1, 4)$; contains $(0, 4)$

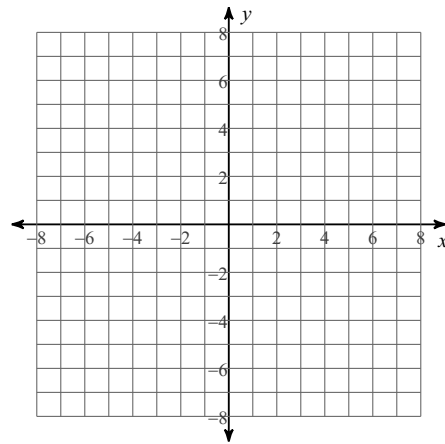
6) Vertex: $(6, -4)$; contains $(5, -2)$

Identify the vertex, min/max value, Domain and Range of each. Then sketch the graph.

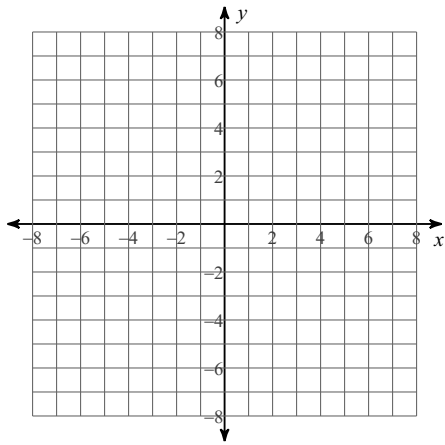
7) $y = x^2 + 4x - 2$



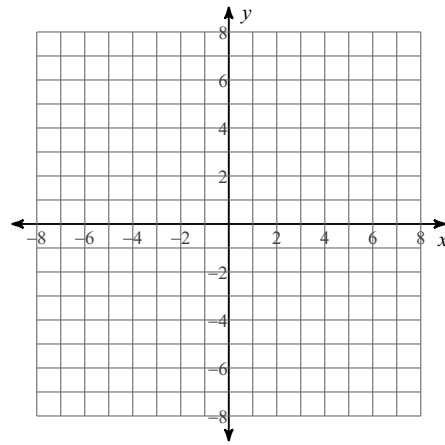
8) $y = 2x^2 + 4x - 1$



9) $y = -x^2 + 2x - 3$



10) $y = x^2 + 4x + 5$



Solve each equation and check each answer by using the theorems about the sum and product of the roots.

11) $k^2 + 6k = 40$

12) $2v^2 = 18$

13) $6n^2 = 18$

Find a quadratic function $f(x) = ax^2 + bx + c$ for each parabola described.

14) maximum value 1
x - intercepts -3 and -1

15) minimum value -1
x - intercepts 4 and 2

16) minimum value -4
x - intercepts 3 and -1

17) minimum value 1
x - intercepts 6 and 4

Find a quadratic equation with integral coefficients having the given roots.

18) 5, 2

19) $\sqrt{7}, -\sqrt{7}$

20) $5 + i, 5 - i$