

Properties of Parabolas

Identify the vertex of each.

1) $y = x^2 + 16x + 64$

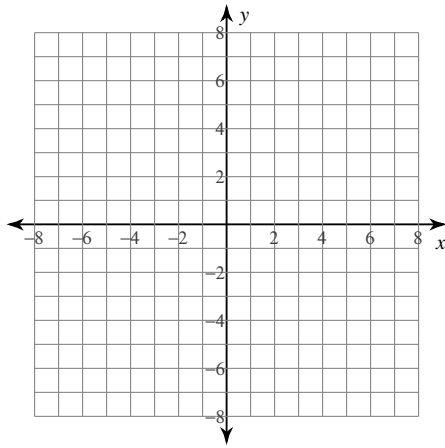
2) $y = 2x^2 - 4x - 2$

3) $y = -x^2 + 18x - 75$

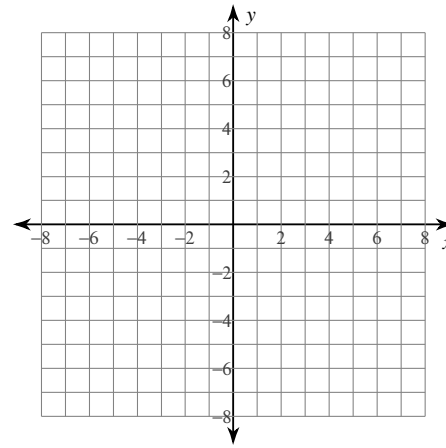
4) $y = -3x^2 + 12x - 10$

Graph each equation.

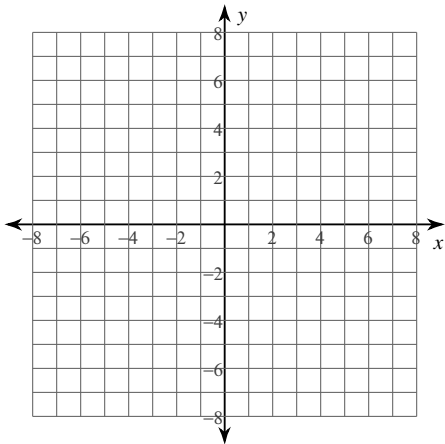
5) $y = x^2 - 2x - 3$



6) $y = -x^2 - 6x - 10$

**Identify the min/max value of each. Then sketch the graph.**

7) $f(x) = -x^2 + 8x - 20$



8) $f(x) = -\frac{1}{3}x^2 + \frac{4}{3}x - \frac{16}{3}$

