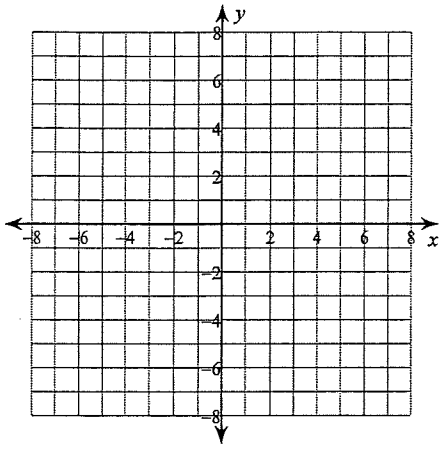
Algebra 2 Name_____ ID: 1

# Quadratics in Standard form

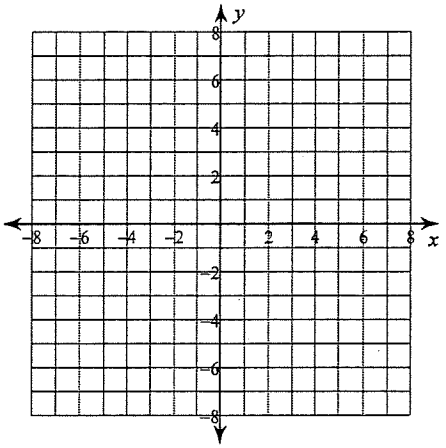
Date_____ Period____

**Identify the vertex, axis of symmetry, and min/max value of each. Then sketch the graph.**

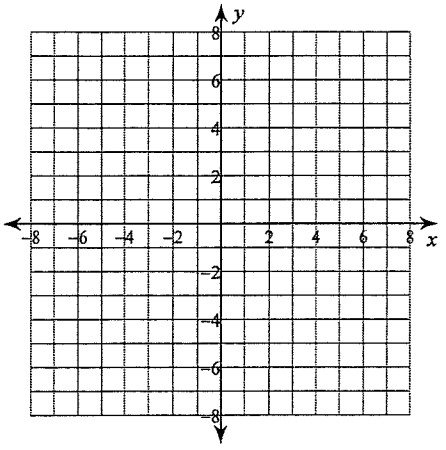
1) $y = -\frac{1}{4}x^2 - \frac{3}{2}x + \frac{11}{4}$



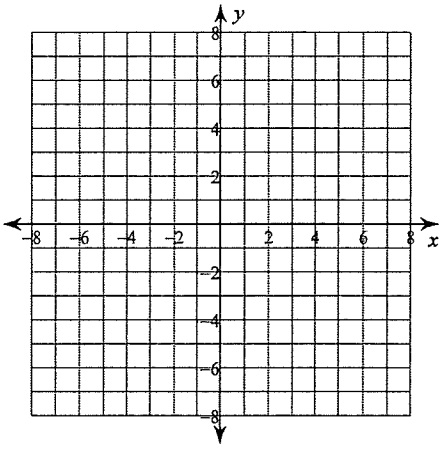
2) $y = x^2 - 10x + 22$



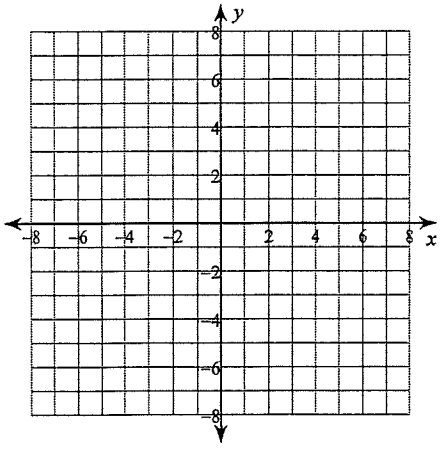
3) $y = x^2 - 3$



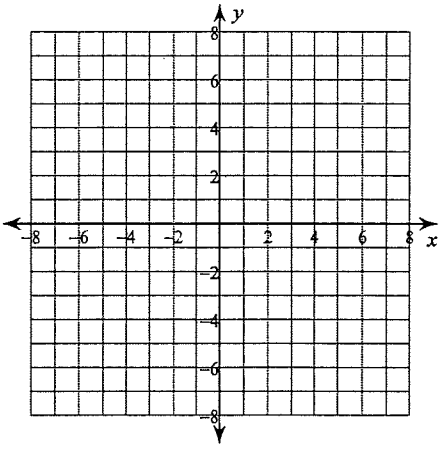
4) $y = -2x^2 - 20x - 54$



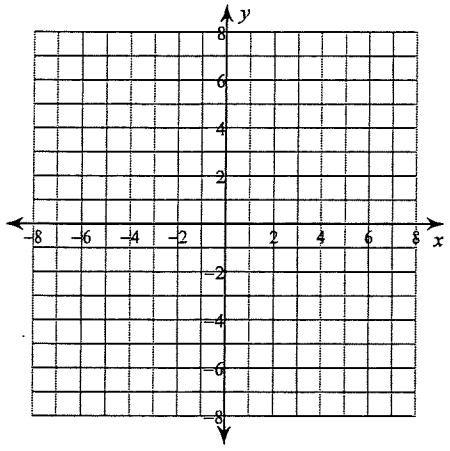
5) $y = -x^2 - 2x + 3$



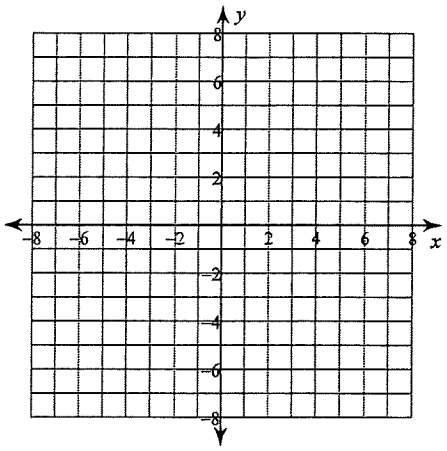
6) $y = -x^2 - 10x - 31$



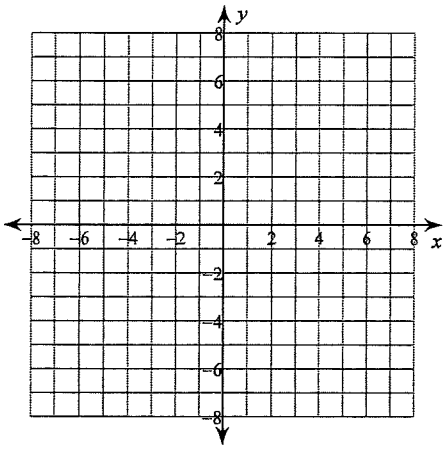
7) $y = -x^2 + 12x - 35$



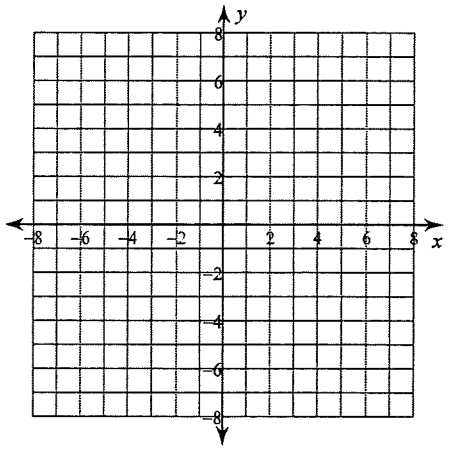

8) $y = 2x^2 - 24x + 72$




9) $y = \frac{1}{4}x^2 - \frac{5}{2}x + \frac{25}{4}$




10) $y = -x^2 + 6x - 12$



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# Properties of Parabolas

Date_____ Period____

**Identify the vertex of each.**

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

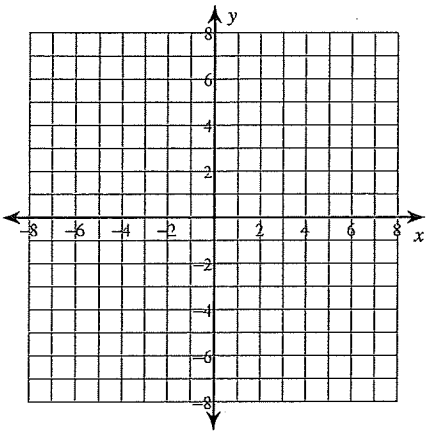
2) $y = 2x^2 - 4x - 2$

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

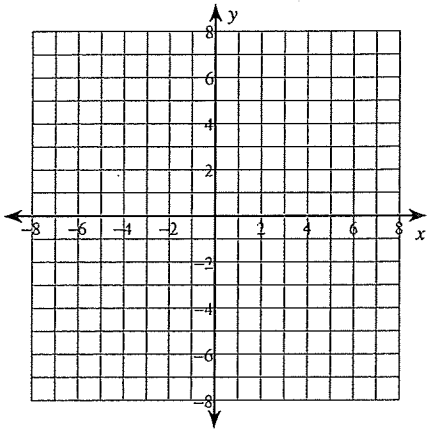
4) $y = -3x^2 + 12x - 10$

**Graph each equation.**

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

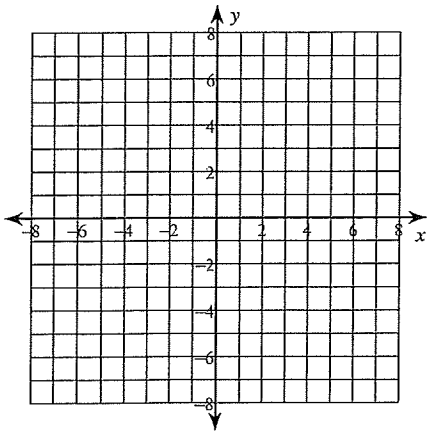



6) $y = -x^2 - 6x - 10$

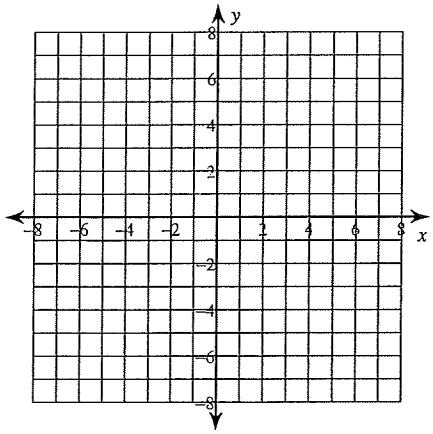



**Identify the min/max value of each. Then sketch the graph.**

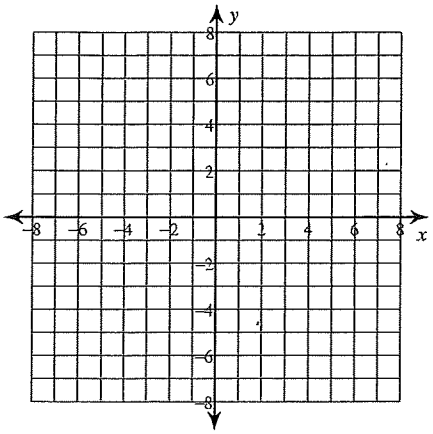
7) $f(x) = -x^2 + 8x - 20$



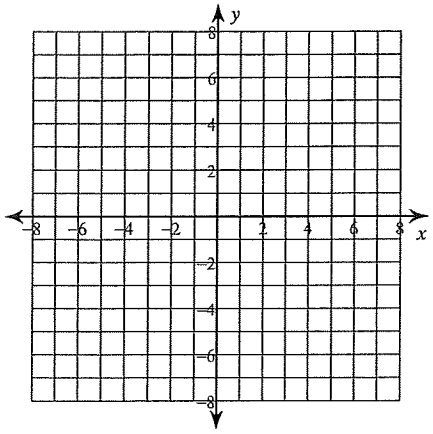

8) $f(x) = -\frac{1}{3}x^2 + \frac{4}{3}x - \frac{16}{3}$



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




10) $f(x) = -x^2 - 10x - 30$




**Identify the vertex, axis of symmetry, and min/max value of each.**

11) $f(x) = 3x^2 - 54x + 241$

12) $f(x) = x^2 - 18x + 86$

13) $f(x) = -\frac{4}{5}x^2 + \frac{48}{5}x - \frac{114}{5}$

14) $f(x) = -2x^2 - 20x - 46$

15) $f(x) = -\frac{1}{4}x^2 + 7$

16) $f(x) = x^2 - 12x + 44$

17) $f(x) = \frac{1}{4}x^2 - x + 9$

18) $f(x) = x^2 + 4x + 5$