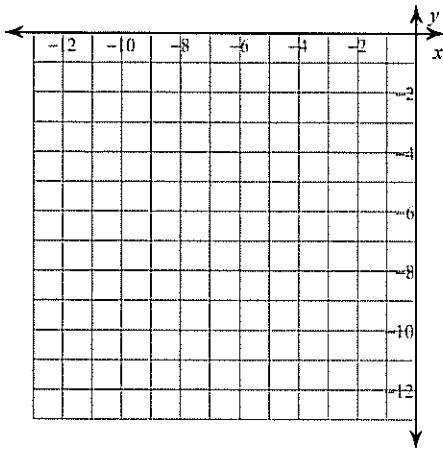


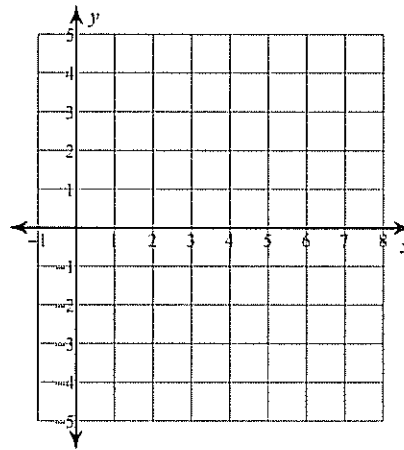
# Graphing and Solving Quadratics

Sketch the graph of each function.

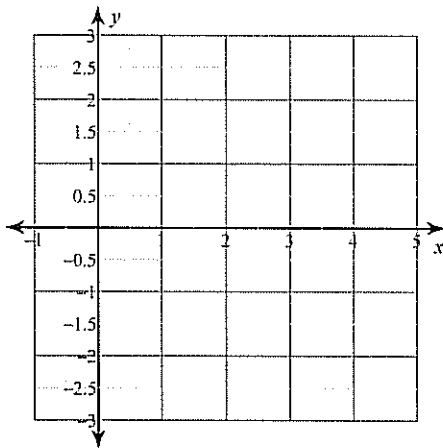
1)  $y = -2x^2 - 16x - 36$



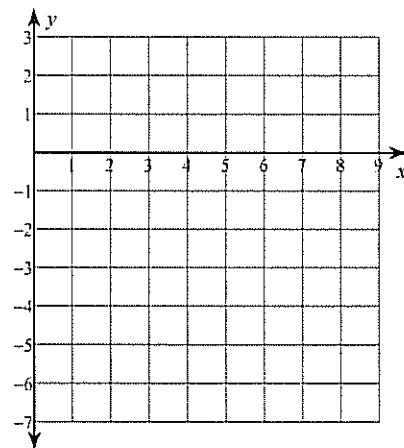
2)  $y = 2x^2 - 16x + 28$



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



4)  $y = -2x^2 + 16x - 30$



**Solve each equation by taking square roots.**

5)  $-4 - 10x^2 = -144$

6)  $2v^2 - 4 = 158$

7)  $10n^2 + 6 = 576$

8)  $10x^2 + 7 = 47$

**Solve each equation by factoring.**

9)  $k^2 + 12k + 35 = 0$

10)  $p^2 - p - 20 = 0$

11)  $7x^2 + 38x + 15 = 0$

12)  $2n^2 + 11n - 40 = 0$

**Solve each equation with the quadratic formula.**

13)  $6x^2 + 5x - 144 = 0$

14)  $5r^2 - 5r + 9 = 0$

15)  $10m^2 - 6m - 6 = 0$

16)  $6n^2 - 2n - 88 = 0$

**Solve each equation.**

17)  $4b^2 - 49 = 0$

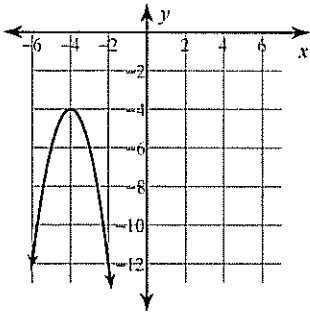
18)  $6v^2 + 11v - 46 = 0$

19)  $11x^2 - 4x - 24 = 0$

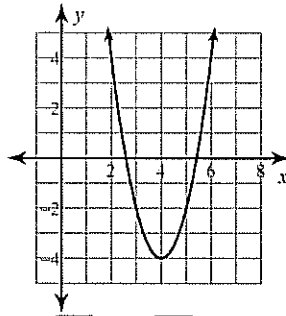
20)  $8n^2 - 8n - 20 = 0$

# Answers to Graphing and Solving Quadratics (ID: 1)

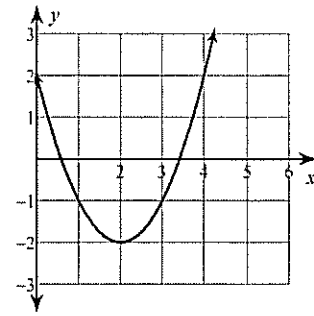
1)



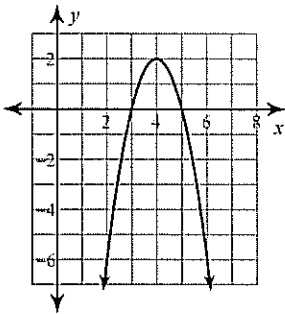
2)



3)



4)



5)  $\{\sqrt{14}, -\sqrt{14}\}$

6)  $\{9, -9\}$

7)  $\{\sqrt{57}, -\sqrt{57}\}$

8)  $\{2, -2\}$

9)  $\{-7, -5\}$

10)  $\{5, -4\}$

11)  $\{-\frac{3}{7}, -5\}$

12)  $\{\frac{5}{2}, -8\}$

13)  $\{4\frac{1}{2}, -5\frac{1}{3}\}$

14) No solution.

15)  $\{\frac{3 + \sqrt{69}}{10}, \frac{3 - \sqrt{69}}{10}\}$

16)  $\{4, -3\frac{2}{3}\}$

17)  $\{3.5, -3.5\}$

18)  $\{2, -3.833\}$

19)  $\{\frac{2 + 2\sqrt{67}}{11}, \frac{2 - 2\sqrt{67}}{11}\}$

20)  $\{\frac{1 + \sqrt{11}}{2}, \frac{1 - \sqrt{11}}{2}\}$