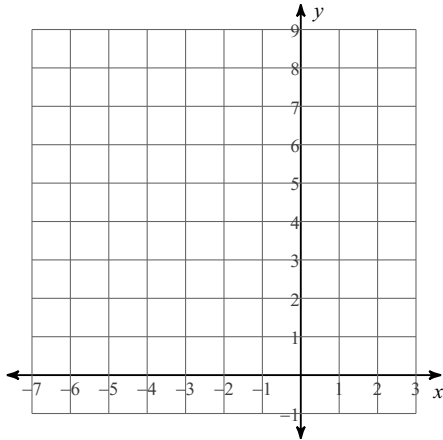


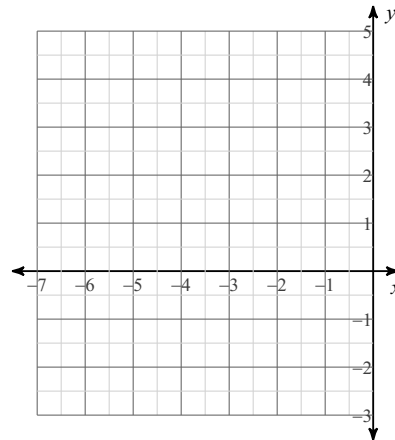
Unit 2 Cw #3 "Solving Quadratics

Find the AOS, the vertex, the y-intercept, and the zeros of the function. Make a table of values with the vertex in the middle and then graph the function accurately.

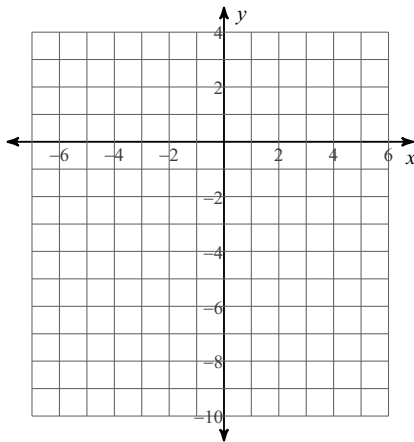
1)  $y = 2x^2$



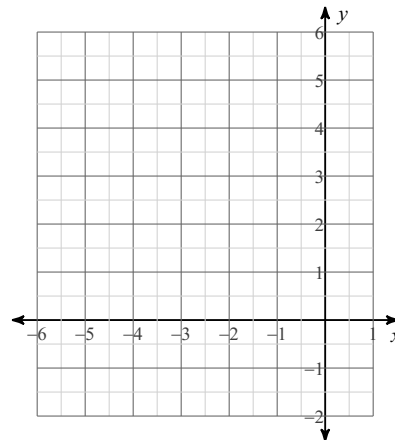
2)  $y = (x + 4)^2 - 1$



3)  $y = -3x^2 - 24x - 45$



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



Solve each equation by factoring.

5)  $(x + 6)(x - 4) = 0$

6)  $m^2 - 8m = 0$

7)  $k^2 + 16k + 58 = 3$

8)  $11x^2 + 22x - 36 = -3$

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

9)  $-6n^2 = -54$

10)  $a^2 - 1 = 79$

11)  $4r^2 - 6 = 190$

12)  $3v^2 + 8 = 2$

13)  $6n^2 + 3 = 531$

14)  $2n^2 + 9 = -35$

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

15)  $4v^2 + 6v - 28 = 0$

16)  $m^2 + 6m + 3 = 2$

17)  $3x^2 - 5 = -8$

18)  $6k^2 - 6k - 4 = -7$

19)  $k^2 + k = 11$

20)  $2x^2 - 30 = 4x$

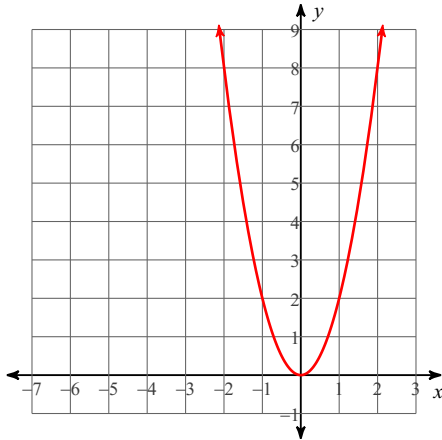
21)  $2n^2 = -3 + 12n$

22)  $3x^2 + 12 = -4x$

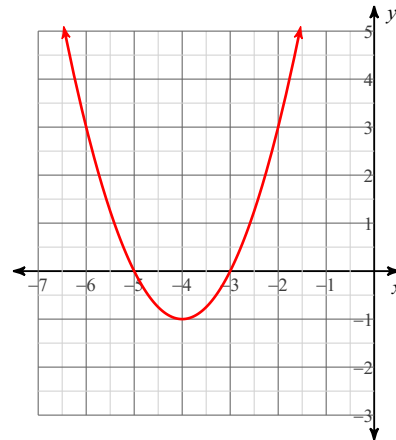
## Unit 2 Cw #3 "Solving Quadratics"

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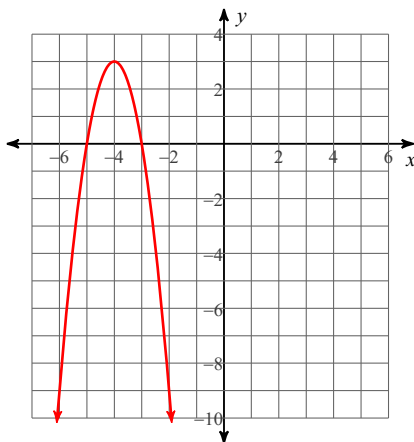
1)  $y = 2x^2$



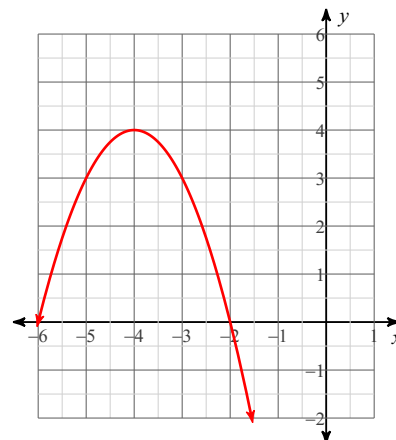
2)  $y = (x + 4)^2 - 1$



3)  $y = -3x^2 - 24x - 45$



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



Solve each equation by factoring.

5)  $(x + 6)(x - 4) = 0$

 $\{-6, 4\}$ 

6)  $m^2 - 8m = 0$

 $\{8, 0\}$ 

7)  $k^2 + 16k + 58 = 3$

 $\{-5, -11\}$ 

8)  $11x^2 + 22x - 36 = -3$

 $\{-3, 1\}$

Solve each equation by taking square roots.

9)  $-6n^2 = -54$

$$\{3, -3\}$$

10)  $a^2 - 1 = 79$

$$\{4\sqrt{5}, -4\sqrt{5}\}$$

11)  $4r^2 - 6 = 190$

$$\{7, -7\}$$

12)  $3v^2 + 8 = 2$

$$\{i\sqrt{2}, -i\sqrt{2}\}$$

13)  $6n^2 + 3 = 531$

$$\{2\sqrt{22}, -2\sqrt{22}\}$$

14)  $2n^2 + 9 = -35$

$$\{i\sqrt{22}, -i\sqrt{22}\}$$

Solve each equation with the quadratic formula.

15)  $4v^2 + 6v - 28 = 0$

$$\left\{2, -\frac{7}{2}\right\}$$

16)  $m^2 + 6m + 3 = 2$

$$\{-3 + 2\sqrt{2}, -3 - 2\sqrt{2}\}$$

17)  $3x^2 - 5 = -8$

$$\{i, -i\}$$

18)  $6k^2 - 6k - 4 = -7$

$$\left\{\frac{1+i}{2}, \frac{1-i}{2}\right\}$$

19)  $k^2 + k = 11$

$$\left\{\frac{-1 + 3\sqrt{5}}{2}, \frac{-1 - 3\sqrt{5}}{2}\right\}$$

20)  $2x^2 - 30 = 4x$

$$\{5, -3\}$$

21)  $2n^2 = -3 + 12n$

$$\left\{\frac{6 + \sqrt{30}}{2}, \frac{6 - \sqrt{30}}{2}\right\}$$

22)  $3x^2 + 12 = -4x$

$$\left\{\frac{-2 + 4i\sqrt{2}}{3}, \frac{-2 - 4i\sqrt{2}}{3}\right\}$$