

C11 - 4.1 - x-intercepts $x^2 + bx + c$ "a = 1" WS

Factor the following, set $y = 0$, and set your brackets equal to zero separately and solve.

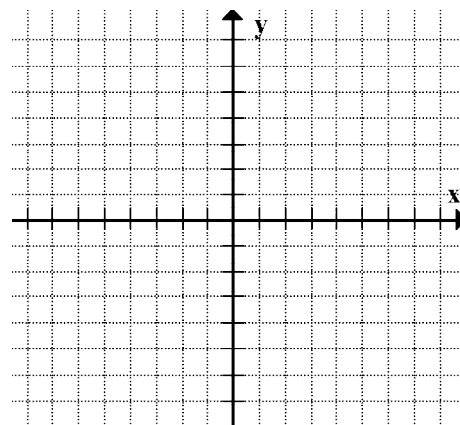
Then sketch a graph and label the x - intercepts

$$y = x^2 + 5x + 6$$

$$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$

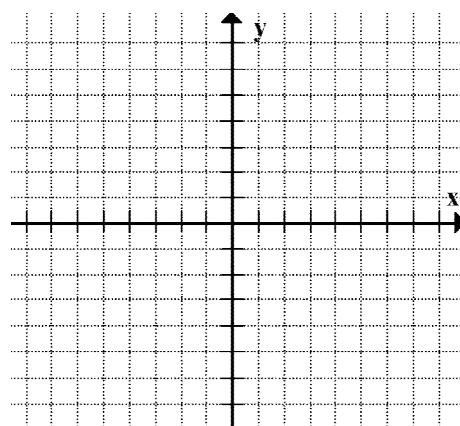
Check by foil:



$$y = x^2 + 6x + 8$$

$$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$

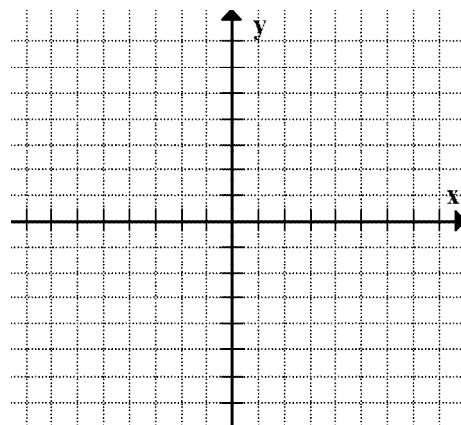
$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$



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

$$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$

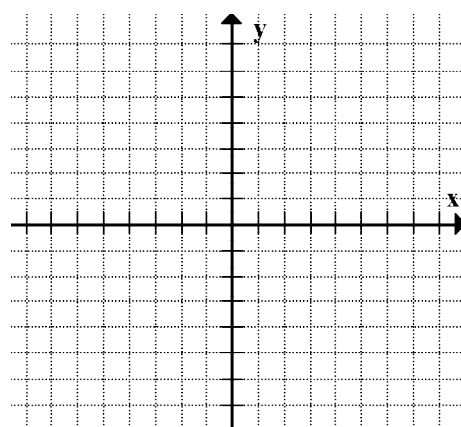
$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$



$$y = x^2 - 3x - 18$$

$$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$



C11 - 4.1 - x-intercepts $x^2 + bx + c$ "a = 1" WS

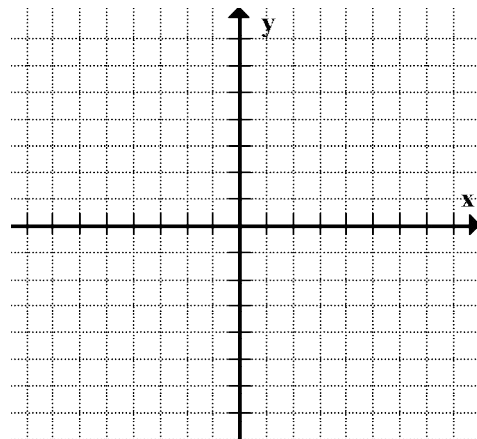
Factor the following, set $y = 0$, and set your brackets equal to zero separately and solve.

Then sketch a graph and label the x – inercepts

$$y = x^2 + 7x + 12 \quad \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$

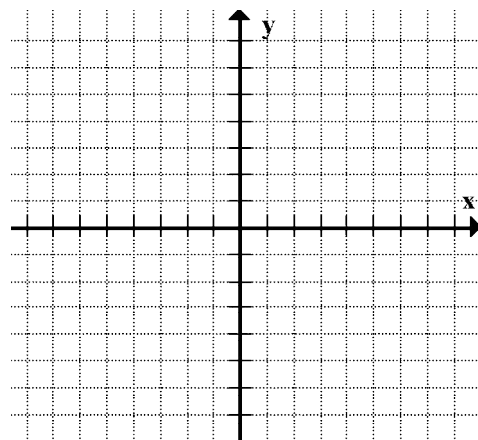
Check by foil:



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

$$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$

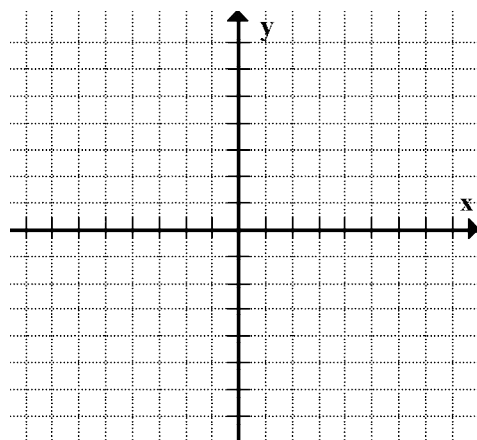
$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$



$$y = x^2 - 11x + 24$$

$$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$

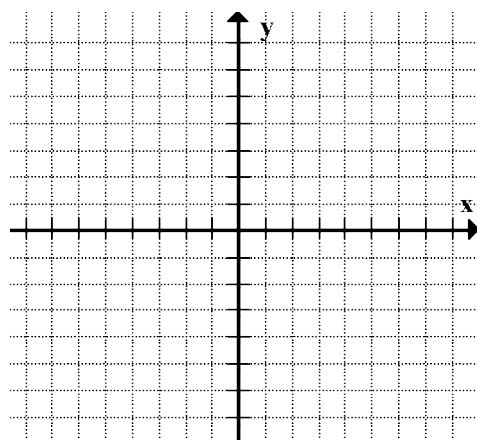
$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$



$$x^2 + 4x - 45$$

$$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} =$$

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$$

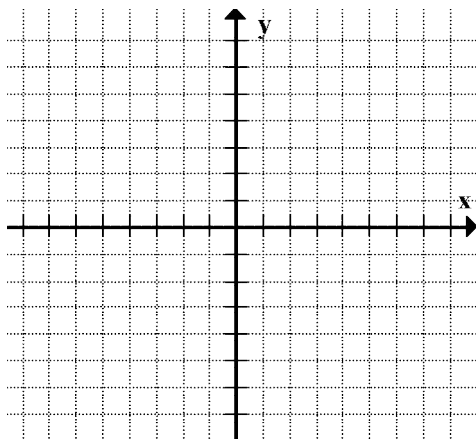


C11 - 4.1 - x-intercepts " $x^2 + bx + c, c = 0$ " WS

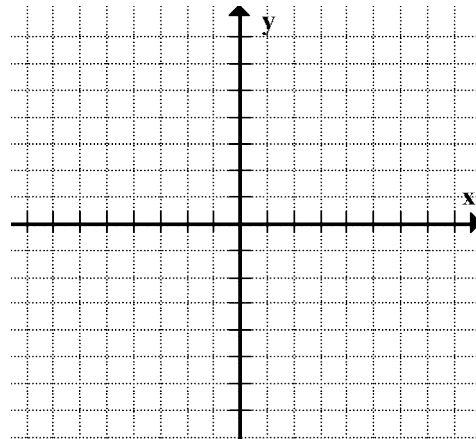
Factor the following, set $y = 0$, and set your Factors equal to zero separately and solve.
Then sketch a graph and label the x - inercepts

$$y = x^2 + 2x$$

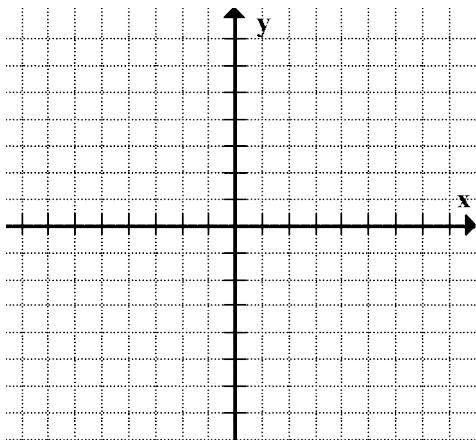
Check by foil:



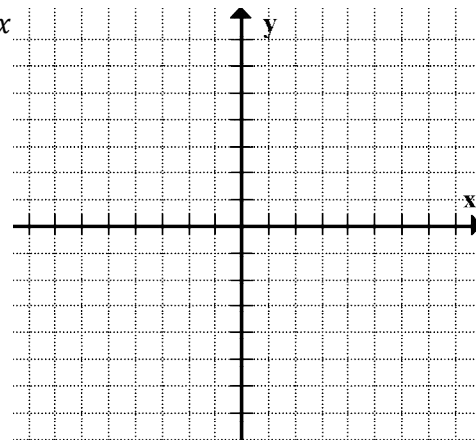
$$y = x^2 + 5x$$



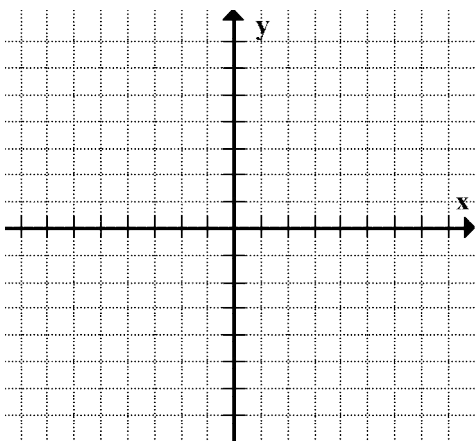
$$y = x^2 - 3x$$



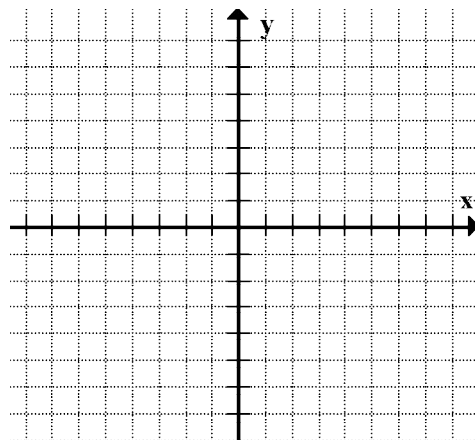
$$y = -x^2 - 13x$$



$$y = 3x^2 + 6x$$



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



C11 - 4.2 - x-intercepts $ax^2 + bx + c$ "a = 1" WS

Factor the following, set $y = 0$, and set your brackets equal to zero separately and solve. Then sketch a graph and label the x – inercepts

$$y = 2x^2 + 7x + 6$$

$$\begin{array}{l} \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \\ \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \end{array}$$

Check by foil:

$$y = 6x^2 + 19x + 3$$

$$\begin{array}{l} \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \\ \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \end{array}$$

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

$$\begin{array}{l} \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \\ \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \end{array}$$

$$y = 5x^2 + 12x + 1$$

$$\begin{array}{l} \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \\ \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \end{array}$$

$$y = 3x^2 + 13x + 4$$

$$\begin{array}{l} \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \\ \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \end{array}$$

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

$$\begin{array}{l} \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \\ \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \end{array}$$

$$y = 3x^2 - 5x + 2 \begin{array}{l} \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \\ \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \end{array}$$

C11 - 4.2 - x-intercepts x^2 - # WS

Factor the following, set $y = 0$, and set your brackets equal to zero seperaely and solve. Then sketch a graph and label the x - intercepts

$$y = x^2 - 1$$

$$y = x^2 - 25$$

$$y = x^2 - 16$$

$$y = x^2 - 49$$

$$y = x^2 - 36$$

$$y = x^2 - 81$$

$$y = x^2 - 64$$

$$y = x^2 - 144$$

$$y = x^2 + 121$$

$$y = 4 - 9x^2$$

$$y = -x^2 + 49$$

$$y = a^2 - b^2$$

$$y = 4x^2 - 9$$

$$y = 4x^2 - 16$$

$$y = 4x^2 + 25$$

$$y = 49 - 81x^2$$

$$y = -25 + 121x^2$$

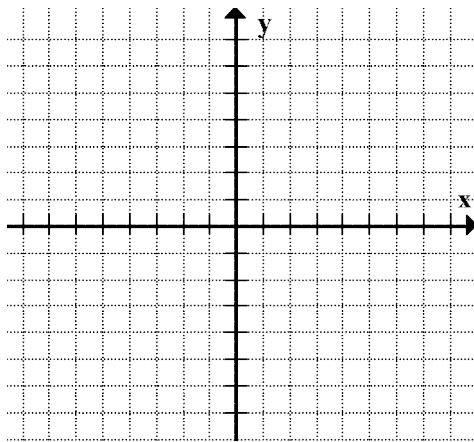
$$y = 81x^2 - 4$$

C11 - 4.2 - Graphing Factored Form TOV WS (a=1)

Graph the following equations using a table of values.

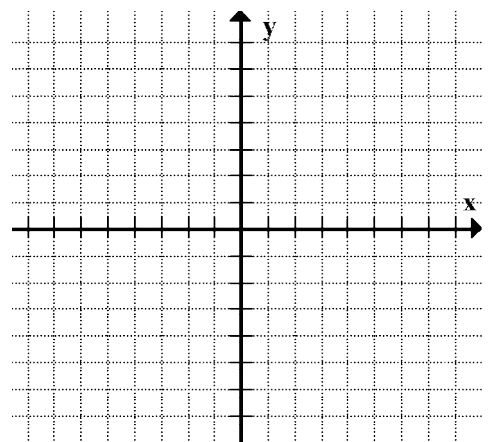
$$y = (x + 1)(x - 1)$$

x	y



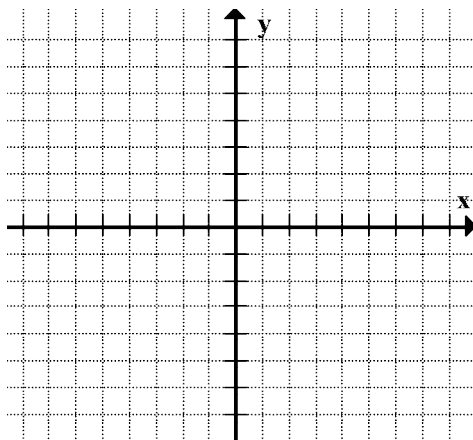
$$y = (x - 3)(x + 1)$$

x	y



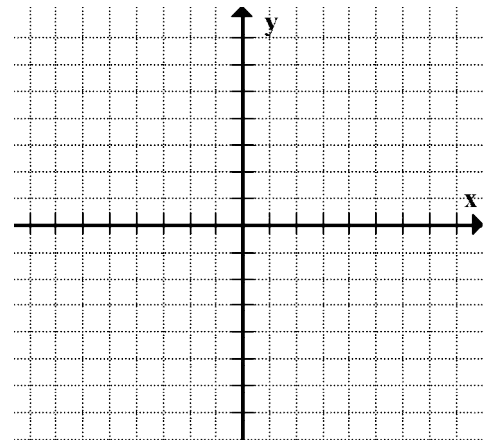
$$y = x(x - 2)$$

x	y



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

x	y

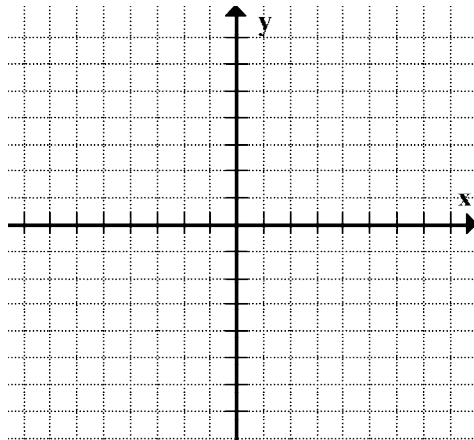


C11 - 4.2 - Graphing Factored Form TOV WS ($a \neq 1$)

Graph the following equations using a table of values.

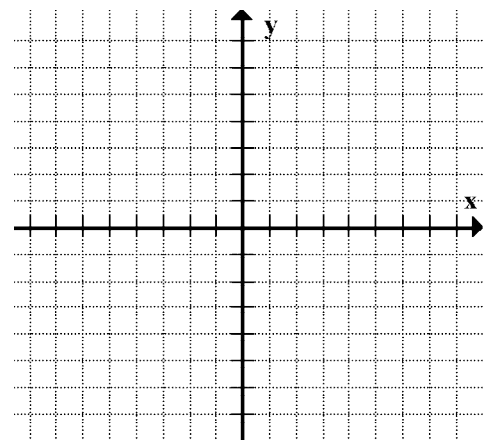
$$y = 2(x - 1)(x - 3)$$

x	y



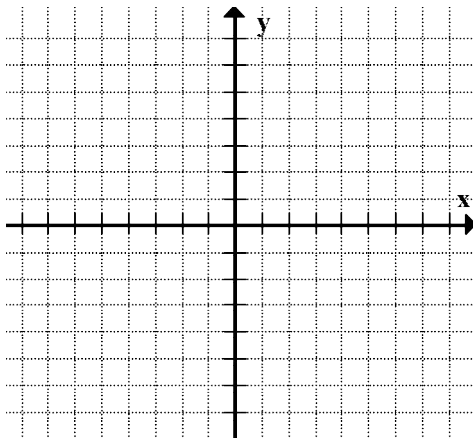
$$y = 3(x + 2)(x + 4)$$

x	y



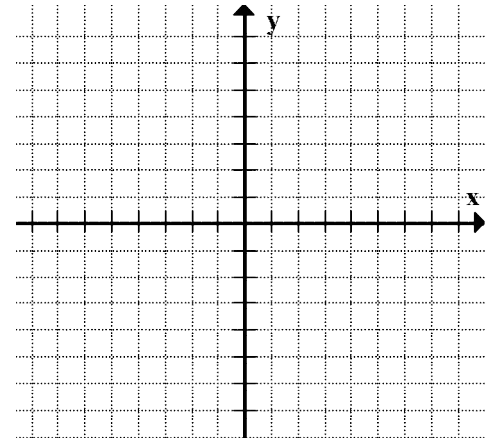
$$y = -2(x - 1)(x - 5)$$

x	y



$$y = \frac{1}{2}(x + 2)(x + 6)$$

x	y



C11 - 4.2 - Find Equation in Standard Form HW

Find equation in Standard Form

$$x - int = 1 \text{ and } 5$$
$$a = 1$$

$$x - int = 1 \text{ and } 5$$
$$(3, -8)$$

$$x - int = -3 \text{ and } 1$$
$$a = 2$$

$$x - int = 2 \text{ and } 4$$
$$a = \frac{1}{2}$$

$$x - int = 2 \text{ and } 4$$
$$(0, 4)$$

$$x - int = \frac{1}{2} \text{ and } \frac{9}{2}$$

C11 - 4.3 - Solve by Completing the Square HW

Set $y = 0$, *complete the square, add or subtract, square root both sides, dont forget about \pm , add or subtract*

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

$$y = x^2 - 8x + 15$$

$$y = x^2 - 10x + 24$$

$$y = x^2 + 4x - 5$$

$$y = x^2 - 10x + 16$$

$$y = 2x^2 + 6x - 9$$

$$y = -3x^2 + 12x + 8$$

$$y = 2x^2 - 8x + 13$$

C11 - 4.4 - Solve by Quadratic Formula HW

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

$$y = x^2 - 8x + 15$$

$$y = x^2 - 10x + 24$$

$$y = x^2 + 4x - 5$$

$$y = x^2 - 10x + 16$$

$$y = 2x^2 + 6x - 9$$

$$y = -3x^2 + 12x + 8$$

$$y = 2x^2 - 8x + 13$$

C11 - 4.4 - Discriminant HW

Find the number of x-intercepts using the discriminant: $b^2 - 4ac$

$$y = x^2 - 4x + 5$$

$$y = x^2 - 16$$

$$y = x^2 + 6x + 8$$

$$y = x^2 - 8x + 16$$

$$y = x^2 + 4x$$

$$y = x^2 - 2x - 24$$

$$y = x^2 - 4x + 5$$

$$y = -x^2 + 4x - 5$$