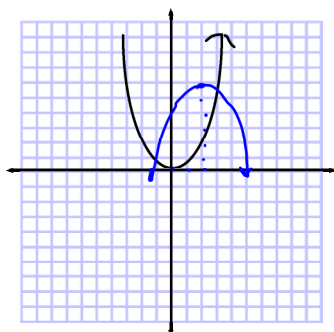


Calendar Math

Given the equation, graph the transformation

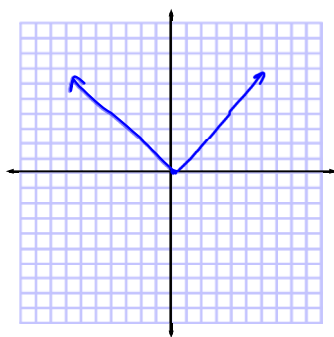
Ex 1: $y = -(x - 2)^2 + 6$

2 units right flip
6 units up

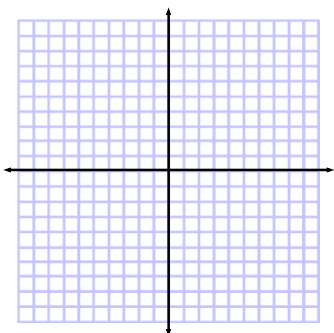


Parent graph

Ex 2: $y = |x - 3| - 2$



Ex 3: $y = \sqrt{x + 3} - 1$



Solve By Factoring 1.6

$$1. \frac{r^2}{r} + \frac{6r}{r} = 0$$

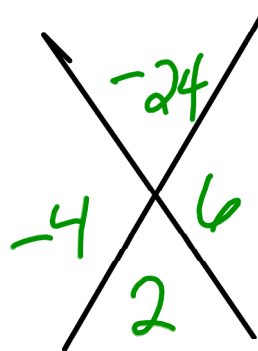
$$\underline{r(r+6)} = 0$$

$$\boxed{r=0}$$

$$\begin{array}{r} r+6=0 \\ -6 \quad -6 \\ \hline \boxed{r=-6} \end{array}$$

$$5. \quad \overbrace{x^2 + 2x - 24 = 0}$$

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



$$\begin{array}{r} x - 4 = 0 \\ +4 \quad +4 \\ \hline \boxed{x = 4} \end{array}$$

$$\begin{array}{r} x + 6 = 0 \\ -6 \quad -6 \\ \hline \boxed{x = -6} \end{array}$$

- 2, 12
- 3, 8
- 4, 4

$$10. \quad \overbrace{7x^2 + 30x + 8 = 0}$$

$$(7x + 2) \left(\frac{7x}{7} + \frac{28}{7} \right)$$

$$(7x + 2)(x + 4) = 0$$

$$\begin{array}{cc} 56 & \\ 2 & \times & 28 \\ & & 30 \end{array}$$

$$\begin{array}{r} 7x + 2 = 0 \\ -2 \quad -2 \\ \hline \end{array}$$

$$\begin{array}{r} x + 4 = 0 \\ -4 \quad -4 \\ \hline \end{array}$$

2, 28

$$\frac{7x}{7} = \frac{-2}{7}$$

$$\boxed{x = -4}$$

$$\boxed{x = -\frac{2}{7}}$$

$$11. \quad x^2 - 16 = 0$$

$$\underline{(x - 4)(x + 4) = 0}$$

$$\begin{array}{r} x - 4 = 0 \\ + 4 \quad + 4 \\ \hline \boxed{x = 4} \end{array}$$

$$\begin{array}{r} x + 4 = 0 \\ - 4 \quad - 4 \\ \hline \boxed{x = -4} \end{array}$$

$$14. \quad \frac{5p^2}{5} + \frac{10p}{5} - \frac{240}{5} = 0$$

$$5(p^2 + 2p - 48)$$

$$5(p - 6)(p + 8)$$

$$5 \neq 0$$

$$\begin{array}{r} p - 6 = 0 \\ +6 \quad +6 \\ \hline p = 6 \end{array}$$

$$\begin{array}{r} p + 8 = 0 \\ -8 \quad -8 \\ \hline p = -8 \end{array}$$

~~$$\begin{array}{r} -48 \\ -6 \quad 8 \\ 2 \end{array}$$~~