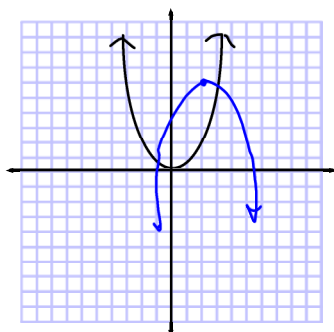


Calendar Math

Given the equation, graph the transformation

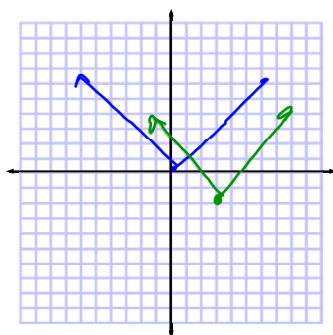
Ex 1:  $y = -(x - 2)^2 + 6$

flip 2 units right  
6 units up



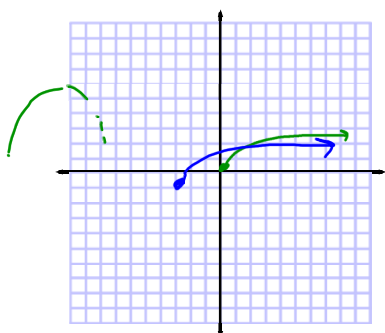
Parent graph

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



3 units right  
2 units down

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



3 units left  
1 unit down

## Difference of Squares

$$(a^2 - b^2) = (a - b)(a + b)$$

$$\frac{x^2 - 9}{-}$$

$$(x + 3)(x - 3)$$

$$\sqrt{x^2} = x$$

$$\sqrt{4} = 2$$

$$\sqrt{9} = 3$$

$$\sqrt{16} = 4$$

$$\sqrt{25} = 5$$

$$\sqrt{36} = 6$$

$$\sqrt{49} = 7$$

$$\sqrt{64} = 8$$

$$\sqrt{81} = 9$$

$$\sqrt{100} = 10$$

1.  $\underline{25k^2} - \underline{9}$

$$(5k - 3)(5k + 3)$$

3.  $4x^2 - 25$

$$(2x - 5)(2x + 5)$$

$$9. \frac{75v^2}{3} - \frac{3}{3}$$

$$3(25v^2 - 1)$$

$$3(5v+1)(5v-1)$$

13.  $9r^2 + 12r + 4$

$$\left( \frac{9r}{3} + \frac{6}{3} \right) \left( \frac{9r}{3} + \frac{6}{3} \right)$$

$$\boxed{(3r + 2)(3r + 2)}$$

$$(3r + 2)^2$$

~~$$\begin{array}{cc} 36 & \\ 6 & 6 \\ \hline 12 & \end{array}$$~~