

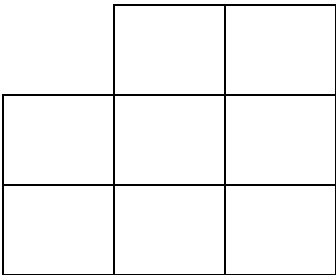
Quadratics Review

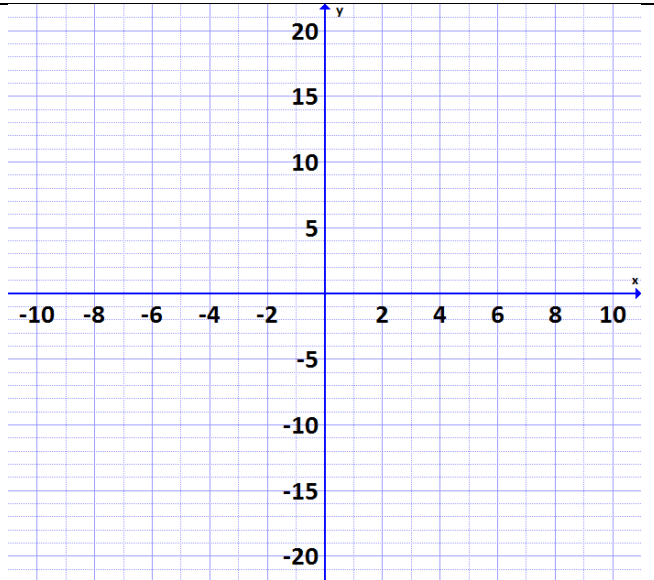
Forms of A Quadratic - Standard Form: $y = ax^2 + bx + c$

- The y-intercept is the _____ or ____ term.
- We can change factored into standard form by _____.
- There are two methods of expanding: _____ and _____.

Example 1: Find the y-intercept, x-intercepts of the following quadratic:

$$y = (x + 4)(x - 5)$$

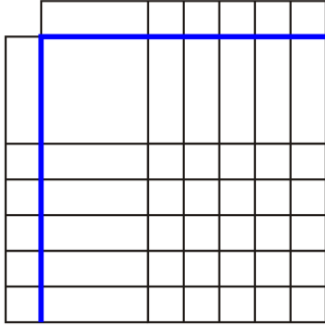
Method 1: Table	Method 2: Algebra - FOIL
	

<p>The y-intercept is: _____</p> <p>The x-intercepts are: _____ and _____</p> <p>The axis of symmetry is: _____</p>	
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Example 2: Expand the following: $y = 2x(3x - 4)$

4. Forms of A Quadratic - Factored Form: $y = (x - r)(x - s)$

- There are two methods of factoring: algebra tiles and algebra
- Example: factor $y = x^2 + 3x + 2$ using tiles



1. Product/Sum Form: Factor $y = ax^2 + bx + c$

- In this case $r \times s = c$ and $r + s = b$
- Find the x-intercepts of the following:

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

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

2. Common Factoring: $y = ax^2 + bx$

- Let us factor: $y = x^2 + 3x$

This can be written as: _____

Based on this $r \times s =$ _____

$r + s =$ _____

The factored form is $y =$ _____ or _____

- Factor and state the x and y intercepts of:

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

$$y = 2x^2 - 2x - 60$$

3. Difference of Squares: $y = ax^2 - b^2$

- $y = x^2 - 4$ can be written as $y =$ _____

$r \times s =$ _____

$r + s =$ _____ factored form _____

$$y = x^2 - 16$$

$$y = 2x^2 - 200$$