Factoring Quadratic Expressions ($c > 0$)

Factoring Quadratics in the form...

$$ax^2 \pm bx + c$$

For this lesson, c is alway positive

When c is positive, our factors will have the same sign

$$x^2 - 11x + 30$$

Step 1: Find positive factors of $a \cdot c$

Step 3: Split the Middle b term

Step 4: Factor by Grouping

Step 2: c is positive $\Rightarrow$ same sign

$$x^2 + 9x + 18$$

Step 1: Find positive factors of $a \cdot c$

Step 3: Split the Middle b term

Step 4: Factor by Grouping

Step 2: c is positive $\Rightarrow$ same sign

$$x^2 + 5x + 6$$

Step 1: Find positive factors of $a \cdot c$

Step 3: Split the Middle b term

Step 4: Factor by Grouping

Step 2: c is positive $\Rightarrow$ same sign

$$3x^2 - 14x + 8$$

Step 1: Find positive factors of $a \cdot c$

Step 3: Split the Middle b term

Step 4: Factor by Grouping

Step 2: c is positive $\Rightarrow$ same sign

$$2x^2 + 17x + 15$$

Step 1: Find positive factors of $a \cdot c$

Step 3: Split the Middle b term

Step 4: Factor by Grouping

Step 2: c is positive $\Rightarrow$ same sign

$$2x^2 - 7x + 6$$

Step 1: Find positive factors of $a \cdot c$

Step 3: Split the Middle b term

Step 4: Factor by Grouping

Step 2: c is positive $\Rightarrow$ same sign

Factoring Quadratics in the form...

$$ax^2 \pm bx + c$$

For this lesson, c is alway positive

When c is positive, our factors will have the same sign

Both factors will have the same sign as b