

Factoring Trinomials in the form...

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

For this lesson $a \neq 1$ and c is **always positive**

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

Both factors will have the same sign as b

$$2x^2 + 13x + 15$$

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

$$6x^2 + 11x + 4$$

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

$$5x^2 + 9x + 4$$

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

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

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

$$2x^2 - 9x + 9$$

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

$$2x^2 - 13x + 15$$

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

$$4x^2 - 7x + 3$$

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

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Step 4: Factor by Grouping

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add to b