

Factoring for $ax^2 + bx + c$

Steps:

1) GCF

Take out the greatest common factor of all terms, if any, put it outside the parenthesis and divide by it

2) Big X

- a) Label "a", "b" and "c"
- b) Top: "a" times "c"
- c) Bottom: b
- d) Sides: factors of top (ac) that add up or subtract to bottom (b)

3) Parenthesis

- a) Set up your two parenthesis with "ax" inside each of them
- b) Place one of the side numbers in each parenthesis
- c) Simplify like you would simplify a fraction

Example 1: Factor $10y^2 - 35y + 30$

Step 1:	Step 2:	Step 3:
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Practice 1: Factor $16a^2 - 12a - 18$

Step 1:	Step 2:	Step 3:
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Example 2: $5x^2 + 13x + 6$

Step 1:	Step 2:	Step 3:
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Practice 2: $x^2 - 2x - 3$

Step 1:	Step 2:	Step 3:
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