Factoring the Difference of Two Squares

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What is a Perfect Square?

When a polynomial is multiplied by itself, then it is a perfect square.

What is a Difference of Two Squares?

The difference of two squares is a squared polynomial subtracted from another squared polynomial.

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3. Is the second term a perfect square?
4. Do the terms have subtraction as the operation?

How to Factor the Difference of Two Squares?

Use the formula:

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

or

$$1\text{st}^2 - 2\text{nd}^2 = (1\text{st} + 2\text{nd})(1\text{st} - 2\text{nd})$$

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2. Write the first term as a perfect square.
3. Write the second term as a perfect square.
4. Factor it out as a product of two binomials with alternating signs in the middle, positive and negative.
5. Factor out any binomial that can still be factored further.

Thank you for watching.