A Special Case of Multiplying Complex Numbers

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What if we multiply two complex conjugates?

Example: $(1 + 2\mathrm{i}) \cdot (1 - 2\mathrm{i})$

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Because we need to both Add and Multiply, we need to ▸ distribute

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Example: $(\mathbf{1} + 2\mathrm{i}) \cdot (\mathbf{1} - 2\mathrm{i}) = \mathbf{1}$

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Multiplying complex conjugates $a + b\mathrm{i}$ and $a - b\mathrm{i}$ gives the Real Number:

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