Completing the Square

LEVEL 1: The Basics

- $x^2 + 8x + 15 = 0$
- $x^2 + 7x + 10 = 0$
- $x^2 + 6x + 5 = 0$
- $x^2 - 9x + 18 = 0$
- $x^2 - 7x + 12 = 0$
- $x^2 + 5x + 4 = 0$
- $x^2 - 5x + 6 = 0$
- $x^2 - 3x + 2 = 0$
- $x^2 + 4x + 3 = 0$
- $x^2 + 11x + 28 = 0$
- $x^2 - 8x + 15 = 0$
- $x^2 - 10x + 21 = 0$
- $x^2 + 9x + 20 = 0$
- $x^2 + 6x + 9 = 0$
- $x^2 - 6x + 8 = 0$
- $x^2 - 12x + 35 = 0$
- $x^2 + 3x + 2 = 0$
- $x^2 + 13x + 36 = 0$
- $x^2 - 4x + 3 = 0$
- $x^2 - 7x + 10 = 0$

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LEVEL 2: Dive Deeper

- $x^2 + 4x = 5$
- $x^2 + 8x = -7$
- $x^2 - 3x = 10$
- $x^2 - 5x = -6$
- $x^2 + 7x = 8$
- $4x^2 - 16x + 12 = 0$
- $x^2 - 2x = 15$
- $x^2 - 49 = 0$
- $x^2 = 9x - 14$
- $x^2 + 10x = -21$
- $x^2 = 6x - 5$
- $2x^2 - 8x + 6 = 0$
- $2x^2 + 10x + 12 = 0$
- $x^2 - 64 = 0$
- $3x^2 + 15x + 18 = 0$
- $3x^2 + 9x = 12$
- $x^2 - 16 = 0$
- $x^2 + 12x = -32$
- $x^2 - 36 = 0$
- $x^2 - 81 = 0$

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LEVEL 3: Mastering the Concept

Challenge yourself with more complex problems

- $2x^2 + 7x - 15 = 0$
- $2x^2 - 5x - 3 = 0$
- $3x^2 - 11x - 4 = 0$
- $x^2 + 14x + 49 = 0$
- $x^2 - 6x = -9$
- $4x^2 - 9 = 0$
- $4x^2 + 12x + 9 = 0$
- $3x^2 + 10x - 8 = 0$
- $x^2 + x = 20$
- $x^2 - 144 = 0$
- $6x^2 - 13x + 6 = 0$
- $5x^2 + 11x + 2 = 0$
- $x^2 - 8x = -16$
- $16x^2 - 1 = 0$
- $9x^2 - 25 = 0$
- $x^2 + 15x = -56$

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Extra Questions

Omar solves $x^2 - 6x = 0$ and finds $x = 6$. Did he miss a solution?

Aisha is solving $x^2 - 11x + 30 = 0$. Help her find both solutions.

Fatima has a rectangular mat with area $x^2 + 8x + 16$. One side is $x + 4$. What is the other side?

Hamza factors $x^2 + 4x - 21 = 0$ as $(x + 7)(x - 3)$. Is he correct?

A square has area $x^2 - 9$. What are possible values of x?

Solve: $(a - 2)^2 - (a - 2) = 0$

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