Name :

MATH MONKS

Solving by Completing the Square

Solve each quadratic equation by completing the square.

1. $x^2 + 14x - 51 = 0$

2. $x^2 + 8x + 7 = 0$

3. $x^2 - 5x - 24 = 0$

4. $x^2 - 2x - 3 = 0$

5. $x^2 + 14x - 15 = 0$

6. $5x^2 = 60 - 20x$

7. $4x^2 - 8x + 1 = 0$

8. $x^2 - 4x - 91 = 7$

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Solving by Completing the Square

Answers

1. $x^2 + 14x - 51 = 0$

$(3, -17)$

2. $x^2 + 8x + 7 = 0$

$(-7, -1)$

3. $x^2 - 5x - 24 = 0$

$(-3, 8)$

4. $x^2 - 2x - 3 = 0$

$(3, -1)$

5. $x^2 + 14x - 15 = 0$

$(1, -15)$

6. $5x^2 = 60 - 20x$

$(2, -6)$

7. $4x^2 - 8x + 1 = 0$

$\left(1 + \frac{\sqrt{3}}{2}, 1 - \frac{\sqrt{3}}{2}\right)$

8. $x^2 - 4x - 91 = 7$

$(2 + \sqrt{102}, 2 - \sqrt{102})$