Name: _____

Quadratic Expressions and Equations

Factor the given quadratic expressions.

1. $x^2 + 2x - 15$

2. $x^2 - 20x + 51$

_____

_____

3. $x^2 - 8x + 15$

4. $x^2 + 2x - 3$

_____

_____

Solve the given quadratic equations by completing the square.

5. $3x^2 + 6x - 52 = -7$

6. $9x^2 + 18x - 23 = 4$

_____

_____

7. $7x^2 - 14x - 64 = -8$

8. $10x^2 + 20x - 80 = 0$

_____

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MATH
MONKS

Quadratic Expressions and Equations

Answers

1 $x^2 + 2x - 15$

2 $x^2 - 20x + 51$

$(x + 5)(x - 3)$

$(x - 17)(x - 3)$

3 $x^2 - 8x + 15$

4 $x^2 + 2x - 3$

$(x - 5)(x - 3)$

$(x - 1)(x + 3)$

5 $3x^2 + 6x - 52 = -7$

6 $9x^2 + 18x - 23 = 4$

$\{3, -5\}$

$\{1, -3\}$

7 $7x^2 - 14x - 64 = -8$

8 $10x^2 + 20x - 80 = 0$

$\{4, -2\}$

$\{2, -4\}$