

7.5 Solving Quadratic Equations by Factoring

Quadratic Equation

Zero-Factor Property

Solve the following quadratic equation.

1. $(x - 5)(2x - 7) = 0$

Procedure:

- 1.) Write the equation in $ax^2+bx+c = 0$ form (quadratic form).
- 2.) Factor the left-hand side of the equation.
- 3.) Use the zero-factor property to set each factor = 0.
- 4.) Solve each resulting linear equation.

Solve.

2. $3x^2=6x$

3. $x^2 - 8x + 16 = 0$

$$4. 4x^2 - 4x = 24$$

$$5. (x+5)^2 = 36$$

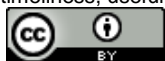
$$6. 2x^3 - 4x^2 - 6x = 0$$

$$7. x^3 + 5x^2 + 6x = 0$$

$$8. (x-1)(x^2 + 5x + 6)$$

$$9. -6 + 3x^2 = -7x$$

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