Name: _____ Period: _____ Date: _____

Factoring to Solve Quadratic Equations Exit Quiz

Part A Instructions: Choose the option that completes the sentence or answers the question.

1. **If ab = 0, then a = 0 or b = 0. This property is known as:**

    a. Commutative property
    b. Zero property
    c. Zero-product property
    d. Associative property

2. **In the middle-term breaking method, the middle term of the quadratic expression is re-written as two terms such that:**

    a. The algebraic sum of two terms is equal to the middle term.
    b. The algebraic product of two terms is equal to the product of the quadratic term and the constant term.
    c. Both a and b
    d. None of these

3. **The solution of $x^2 - 9x - 36 = 0$ is:**

    a. $x = 4, -9$
    b. $x = 4, 9$
    c. $x = 3, -9$
    d. $x = -3, 12$

4. **The solution of $81x^2 - 9 = 0$ is:**

    a. $x = \pm\frac{1}{2}$
    b. $x = \pm\frac{1}{3}$
    c. $x = \pm\frac{1}{9}$
    d. $x = \pm9$

Part B Instructions: Answer the question below.

Find the solution of $2x^2 - 18x - 72 = 0$.

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ANSWERS: Part A Instructions: Choose the option that completes the sentence or answers the question.

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Part B Instructions: Answer the question below.

5. **Find the solution of $2x^2 - 18x - 72 = 0$.**

   $$x^2 - 9x - 36 = 0$$

   $$x^2 - 12x + 3x - 36 = 0$$

   $$x(x - 12) + 3(x - 12) = 0$$

   $$(x + 3)(x - 12) = 0$$

   $$x = -3 \quad ; \quad x = 12$$

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