

**Factoring to Solve Quadratic Equations** Bell Work

1. The solutions of a quadratic equation are also known as:

- a. roots
- b. zeros
- c. both a and b
- d. None of these

2. Write the following quadratic expression in two factors  $y = 4x(x - 1) - 2(x - 1)$ .

- a.  $y = (4x - 1)(x - 2)$
- b.  $y = (4x - 1)(x - 1)$
- c.  $y = -(4x - 2)(x - 1)$
- d.  $y = (4x - 2)(x - 1)$

3. Factor  $y = x^2 - 6x + 8$

- a.  $y = (x - 2)(x - 4)$
- b.  $y = -(x + 2)(x - 4)$
- c.  $y = (x - 2)(x + 4)$
- d.  $y = -(x - 2)(x - 4)$

4. Factor  $y = 12x^2 - 3x - 9$ .

- a.  $y = 12x(x - 9)$
- b.  $y = 3(x - 1)(4x + 3)$
- c.  $y = 3(x - 1)(4x - 3)$
- d.  $y = 3(-x - 1)(4x + 3)$

5. Write this quadratic expression in two factors,  $y = 2x^2 - 8 + 4x - 8$ .

- a.  $y = (2x - 4)(x - 2)$
- b.  $y = (x - 4)(2x - 8)$
- c.  $y = (x - 2)(2x + 8)$
- d.  $y = -(x - 2)(2x + 8)$

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

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### Answers:

1. both a and b
2.  $y = (4x - 2)(x - 1)$
3.  $y = (x - 2)(x - 4)$
4.  $y = 3(x - 1)(4x + 3)$
5.  $y = (x - 2)(2x + 8)$