Day 1 – Solving by Factoring

Solve the quadratic equation to find it zeros.

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

2.
$$2x^2 - 11x - 21 = 0$$

3.
$$x^2 - 15x + 36 = 0$$

4.
$$-30x^2 = -25x$$

5.
$$(x-8)(2x-1) = 0$$
 6. $3x^2 - 81x = 0$

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7.
$$x^2 - 48 = 2x$$

$$8.5x^2 + 9x = 2$$

9.
$$5x^2 - 19x - 26 = 4$$

10.
$$x^2 - 6x + 9 = 0$$

11.
$$x^2 - 6x = 0$$

12.
$$2x^2 - 7x - 4 = 0$$

- 13. Given that the solutions to a quadratic equation are x = -6 and x = 8, write an equation in factored form AND standard form that would represent those solutions.
- 14. What are the factors AND zeros of $x^2 + 4x 21 = 0$?

15. Which equation only has -5 has its only zero? Show work to prove the answer you selected.

A.
$$y = x^2 + 9x + 20$$

B.
$$y = x^2 - 8x + 15$$

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 C. $y = x^2 + 10x + 25$

D.
$$y = x^2 - 25$$

16. When an equation is factored and the factored form results in a binomial squared, will it ever have two different zeros? Explain why or why not.