Secondary Math 2 Name_____

4.1 Solving by Factoring

Date_____ Period____

Factor each completely.

1) $x^2 - 2x - 63$

2) $x^2 - 9$

3) Define the fundamental theorem of algebra.

4) Define the zero product property.

5) When solving, why does the right side need to be set equal to 0?

6) When solving by factoring, why is the solution the opposite of the number that is inside the factor?

7) Before you start solving an equation, what does the equation need to look like?

Solve each equation by factoring.

8) $5x^2 - 45x + 100 = 0$

9) $3n^2 + 3n - 6 = 0$

10) $5v^2 - 30v + 40 = 0$

11) $8x^2 + 56x + 80 = 0$

12) $2a^2 + 12a = 0$

13) $k^2 + 8k + 12 = 0$

14) $3m^2 - 17m - 51 = 5$

15) $3x^2 + 17x + 22 = 2$

16) $35x^2 - 37x + 2 = -4$

17) $7x^2 + 46x + 26 = 2$

18) $7k^2 - 26k - 15 = -7$

19) $6x^2 + 31x + 36 = 8$