Solving Quadratics by Factoring

Solving Quadratics by Factoring: Use the Zero Product Property

1. If $a \cdot b = 0$ then either $a = $ _____ or $b = $ _____

This is also true of products in the following form:

2. If $(x - a)(x - b) = 0$, then either $(x - a) = $ _____ or $(x - b) = $ _____

This means that one side of the quadratic equation must equal zero!

Examples: Solve the following Quadratic equations by factoring.

1. $x^2 + 7x + 12 = 0$

2. $x^2 - 25 = 0$

3. $2x^2 + 4x - 16 = 0$

4. $x^2 + 2x - 7 = -4$

5. $6x^2 - x - 12 = 0$

6. $(4x - 7)(2x + 5) = 0$

7. $6x^2 + x + 8 = 10$

8. $3x^2 + 15x + 18 = 0$

9. $5x^2 + 2x = 0$