General Algebra II   Worksheet #3   Unit 8   Selected Solutions

Use the factoring method to solve each of the following equations. Show your process neatly organized.

3. $x^2 - 100 = 0$
   $(x + 10)(x - 10) = 0$
   $x + 10 = 0$ or $x - 10 = 0$
   $x = -10$ or $x = 10$

6. $x^2 - 8x + 15 = 0$
   $(x - 3)(x - 5) = 0$
   $x - 3 = 0$ or $x - 5 = 0$
   $x = 3$ or $x = 5$

9. $3x^2 + 14x + 15 = 0$
   $(3x + 5)(x + 3) = 0$
   $3x + 5 = 0$ or $x + 3 = 0$
   $x = -5/3$ or $x = -3$

12. $10x^2 + 13x - 3 = 0$
   $(5x - 1)(2x + 3) = 0$
   $5x - 1 = 0$ or $2x + 3 = 0$
   $x = 1/5$ or $x = -3/2$

15. $x^2 + 3x = 3x + 4$
   $x^2 - 4 = 0$
   $(x + 2)(x - 2) = 0$
   $x + 2 = 0$ or $x - 2 = 0$
   $x + -2$ or $x = 2$

18. $x^2 + (x - 2)^2 = (x + 2)^2$
   $x^2 + x^2 - 4x + 4 = x^2 + 4x + 4$
   $x^2 - 8x = 0$
   $x(x - 8) = 0$
   $x = 0$ or $x - 8 = 0$
   $x = 0$ or $x = 8$