Solving Quadratic Equations, Zero Product Property

<u>Algorithm</u>

1. Place everything on one side, zero on the other side of the equal sign
2. Factor completely
3. Set each factor equal to zero
4. Solve the resulting equations

Solve the following quadratic equations using the Zero product Property

1. $x^2 + 7x + 12 = 0$ 2. $x^2 + 9x + 20 = 0$

3. $x^2 + 6x + 5 = 0$ 4. $x^2 + 8x + 12 = 0$

5. $x^2 + 7x + 10 = 0$ 6. $x^2 + 11x + 10 = 0$

7. $x^2 - 5x + 6 = 0$ 8. $x^2 - 8x + 15 = 0$

9. $x^2 - 9x + 18 = 0$ 10. $x^2 - 9x + 20 = 0$

11. $x^2 - 2x + 1 = 0$ 12. $x^2 - 5x + 4 = 0$

13. $x^2 - x - 20 = 0$

14. $x^2 + 3x - 40 = 0$

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

16. $x^2 + 4x - 45 = 0$

17. $x^2 - 3x - 70 = 0$

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

19. $x^2 + 5x = -4$

20. $x^2 + 2x = 3$

21. $x^2 = 5x - 4$

22. $x^2 = 15 - 2x$

23. How are exercises 1–18 different from 19–22?

24. $2x^2 + 5x + 2 = 0$

25. $6x^2 + 10x - 4 = 0$

26. $3x^2 + x - 2 = 0$

27. $8y^2 + 3y = 3$