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

1. $5x^2 - 10x = 0$

2. $12x^2 + 9x = 0$

3. $x^2 - 100 = 0$

4. $9x^2 - 25 = 0$

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

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

7. $x^2 + 6x - 27 = 0$

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

9. $3x^2 + 14x + 15 = 0$

10. $12x^2 - 32x + 5 = 0$

11. $6x^2 - 7x - 3 = 0$

12. $10x^2 + 13x - 3 = 0$

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

13. $x^2 - 3x = 4$ 14. $6x^2 + 1 = 5x$ 15. $x^2 + 3x = 3x + 4$

16. $x(3x + 5) = 3x + 8$ 17. $(5x - 2)(x + 1) = (3x + 2)(x - 1)$

18. $x^2 + (x - 2)^2 = (x + 2)^2$ 19. $x^2 + (3x - 5)^2 = (x + 2)^2$