Use the factoring method to solve each equation. Show your work neatly organized in the space provided.

1. $x^2 = 6x + 16$ 2. $x^2 + 24 = -11x$

3. $x^2 = 7x - 6$ 4. $x^2 + x = 30$

5. $10x^2 = 13x + 3$ 6. $5x = 6 - 6x^2$

7. $10x^2 + 1 = 7x$ 8. $18x^2 = 23x + 6$

9. $x^2 = 5x$ 10. $x^2 = -10x$

Use the factoring method to solve each equation. Show your work neatly organized in the space provided.

11. $5x^2 = x$

12. $8x^2 = -3x$

13. $x^2 = 49$

14. $16x^2 = 25$

15. $x^2 = 8x - 16$

16. $x^2 + 64 = -16x$

17. $49x^2 = 42x - 9$

18. $-20x = 100x^2 + 1$

19. $(4x - 1)(x - 5) = (x - 2)^2 - 9$

20. $x(2x + 3) = x(x + 3)$