Quadratic Equations

Do all work on notebook paper. All steps should be shown. All work should be neat and organized.

Solve by factoring.

1. \( x^2 + 6x + 8 = 0 \)
2. \( 2x^2 + 12x - 32 = 0 \)
3. \( 6x^2 - 2x = 0 \)
4. \( 4x^2 - 9 = 0 \)
5. \( 2x^2 - 7x - 4 = 0 \)
6. \( 6x^2 - 41x - 7 = 0 \)
7. \( 12x^2 - 31x + 9 = 0 \)
8. \( x^2 + 5x - 4 = 10 \)
9. \( 8x^2 - 13x - 9 = 5x - 4 \)
10. \( 3x^2 + 5x + 20 = 2x^2 - 3x + 4 \)
11. \( 9x^2 + 7x - 7 = 3x(x - 4) \)
12. \( 3x^2 - 8x - 31 = (2x + 3)(x - 7) \)
13. \( (2x + 5)(x - 4) = (x + 7)(x - 4) \)