

Factor each of the following (if possible).

1. $x^2 - 2x - 15$

2. $2x^2 + 14x + 24$

3. $4x^2+14x-60$

4. $2x^2+6x-1$

5. $6x^2+17x-14$

Solve each of the following by factoring.

6. $x^2-3x-10=0$

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

8. $6x^2+27x-15=0$

9. $2x^2 - 11x + 15 = 0$

10. $105x^2 - 215x + 100 = 0$

Graph each of the following. Also, put the functions into vertex form, list all intercepts, and find the roots by factoring (if possible).

11. $f(x) = 2x^2 + 4x + 6$

12. $f(x) = 3x^2 + 2x - 8$

13. $f(x) = x^2 + 2x - 4$

14. $f(x) = 9x^2 - 49$

15. $f(x) = x^2 - 3x - 10$