

# Section 3.1 – Solving Polynomial Equations

## Problem Set 1

Solve the following equations.

$$1. \quad a^2 + a - 36 = 3a - 1$$

$$2. \quad 6b^2 - 65b + 163 = -b + 3$$

$$3. \quad -2a^2 + 10a + 51 = -3a^2 - 4a + 3$$

$$4. \quad x^2 + 11x + 18 = 0$$

$$5. \quad y^2 - 1 = 0$$

$$6. \quad x^2 - x - 30 = 0$$

$$7. \quad b^2 + 14b + 40 = 0$$

$$8. \quad -5x^2 + 103x + 158 = 4x^2 - 2x + 2$$

$$9. \quad -24a^2 + 50a + 15 = 3a^2 + 2a + 3$$

$$10. \quad -48s^2 + 696s + 360 = 0$$

$$11. \quad -16x^2 - 156x + 742 = 0$$

$$12. \quad -16x^2 - 12x + 28 = 0$$

$$13. \quad -2t - 4 = -t^2 + 4$$

$$14. \quad -5x^2 + 41x + 228 = 0$$

$$15. \quad a^2 + 3a + 2 = 0$$

$$16. \quad -3t^2 - 6t - 8 = -4t^2 - 4t$$

$$17. \quad a^2 - 14a + 49 = 0$$

$$18. \quad b^2 + 5b - 24 = 3b$$

$$19. \quad 12x^2 + 105x + 112 = -2x - 3$$

$$20. \quad -20y^2 + 200y + 105 = 0$$

$$21. \quad -58t^2 + 318t + 165 = 2t^2 + t + 4$$

$$22. \quad -270b^2 + 3792b + 2190 = 0$$

$$23. \quad 10x^2 + 180x + 759 = 3x + 3$$

$$24. \quad 5t^2 + 5t - 36 = 4t^2$$