# UNIT 4 WORKSHEET 6

## Solving Polynomial Equations Worksheet 3

**Find <u>all</u> roots of the following equations.**

1. $x^4 + x^3 - 15x^2 - 9x + 54 = 0$

2. $6x^5 + 18x^4 - 30x^3 - 90x^2 + 24x + 72 = 0$

3. $36x^5 + 36x^4 - 25x^3 - 25x^2 + 4x + 4 = 0$

4. $x^4 - 2x^3 - 5x^2 + 8x + 4 = 0$

5. $x^4 + x^3 - 8x^2 - 6x + 12 = 0$

6. $x^5 - x^4 + 5x^3 - 5x^2 + 4x - 4 = 0$

7. $x^4 - 2x^3 + x^2 + 8x - 20 = 0$

8. $x^4 + 2x^3 + x^2 + 18x - 72 = 0$

9. $2x^4 - 5x^3 - 44x^2 + 143x - 60 = 0$

10. $x^5 - 7x^4 + 10x^3 + 14x^2 - 24x = 0$