Name: _____

Date: _____ Per: _____

Unit 3: Power, Polynomials, and Rational Functions

Homework 8: Irrational Zeros & Descartes Rule of Signs

** This is a 2-page document! **

Directions: List all possible rational zeros. Then, find all the real zeros.

1. $f(x) = x^4 - 25x^2 + 24$

2. $f(x) = 5x^3 - x^2 - 15x + 3$

3. $f(x) = 3x^3 + 2x^2 - 24x - 16$

4. $f(x) = 2x^4 - 9x^2 + 4$

5. $f(x) = 5x^3 - 20x^2 + x - 4$

6. $f(x) = 3x^4 - 35x^2 + 72$

1. $f(x) = 4x^3 + 3x^2 + 36x + 27$

8. $f(x) = 2x^3 + 7x^2 + 16x + 56$

9. $f(x) = x^4 - 256$

10. $f(x) = x^4 + 24x^2 + 80$

11. $f(x) = 3x^3 + 3x^2 - 6$

12. $f(x) = 2x^3 + 2x^2 - 2x + 30$