Name_____
Algebra 2 & Trig

Unit 3 Target 6 Remediation

1. Which describes the number and type of roots of the equation $3x^4 - 2x^3 - 8x^2 - 26x - 3 = 0$

A. 4 real roots

B. 3 real roots and 1 imaginary root

C. 2 real and 2 imaginary roots

D. 1 real root and 3 imaginary roots

2. Find the solution set for the equation $x^4 + 4x^3 - 5x^2 = 0$

Find <u>all</u> of the roots of each function by depressing the polynomial. *Provide exact solutions only. Irrational solutions must be in simplified form (no rounded decimals).*

3. $f(x) = x^4 + 2x^3 + x^2 + 8x - 12$

4. $f(x) = x^3 + 4x^2 + x - 26$