

Pre-College Algebra

Name _____

Division of Polynomials

Date _____ Per _____

Divide using long division.

1. $(-8x^3 + 40x^2 - 37x + 30) \div (x - 4)$

2. $(x^4 + 2x^3 - 87x^2 - 68x + 13) \div (x + 10)$

3. $(4x^4 - 15x^3 - 28x^2 + 6x + 3) \div (4x + 1)$

4. $(n^4 + 5n^3 - 6n + 3) \div (n + 3)$

5. $(x^4 + 6x^3 - 2x^2 - 5x + 10) \div (x^2 + 3x - 2)$

Divide using synthetic division

6. $(4x^3 - 10x^2 - 11x + 16) \div (x - 4)$

7. $(x^3 - 5x^2 - 13x - 1) \div (x - 7)$

8. $(2x^4 + 2x^3 - 12x^2 + x + 6) \div (x + 3)$

9. $(b^3 - 13b^2 + 25b + 50) \div (b - 10)$

10. $(y^5 + 5y^2 - 13y - 1) \div (y - 7)$

11. $(n^3 - 125) \div (n - 5)$

12. $(5x^4 + 2x^2 - 15x + 10) \div (x + 2)$