

Name: \_\_\_\_\_  
Pre-Calculus

Date: 11/3/14  
Ms. Wilson

**Classwork/Homework – Polynomial Long Division**  
**Due Wednesday 11/5/14**

For questions 1-4, divide  $f(x)$  by  $d(x)$ , and write your answer polynomial form.

1.)  $f(x) = x^2 - 2x + 3; d(x) = x - 1$

2.)  $f(x) = 4x^3 - 8x^2 + 2x - 1; d(x) = 2x + 1$

3.)  $f(x) = x^4 - 2x^3 + 3x^2 - 4x + 6; d(x) = x^2 + 2x - 1$

4.)  $f(x) = x^4 - 3x^3 + 6x^2 - 3x + 5; d(x) = x^2 + 1$

For questions 5-8, divide the polynomial, and write your answer in fraction form.

$$5.) \frac{x^3 - 5x^2 + 3x - 2}{x + 1}$$

$$6.) \frac{2x^4 - 5x^3 + 7x^2 - 3x + 1}{x - 3}$$

$$7.) \frac{5x^4 - 3x + 1}{4 - x}$$

$$8.) \frac{x^8 - 1}{x + 2}$$