Name:_____ Date:_____ Block:_____

Section 6-4: *Division of Polynomials* (PART I)

Warm-up

1. How many terms does $x^2 + x + 2$ have?

2. What is the degree of $9x^2 + 5x^3 + 2x^4 + x + 2$?

3. Give an example of a monomial, a binomial, and a trinomial.

Dividing Polynomials by monomials:

- When you divide a polynomial by a monomial, you can divide each **TERM** of the polynomial by the monomial.
- PLAN OF ACTION:
  - _____
  - _____
  - _____

EXAMPLE #1:

Divide $x^3 + 16x^2 + 6x$ by $2x$

- **COMMON MISTAKE:**

$$\frac{3x^2 + 2}{x} \neq$$

$$\frac{3x^2 + 2}{x} =$$

Name:_____ Date:_____ Block:_____

Section 6-4: *Division of Polynomials* (PART I)

THINGS TO CONSIDER:

- If you divide a 3 term polynomial by a monomial, how many terms will the answer have?

- If you divide a polynomial by a monomial, will the answer always be a polynomial?

EXTRA PRACTICE:

1) $\frac{4x^2+3x+12}{2}$

2) $\frac{8v^3+14v+12}{2v}$

3) $(24a^3b^2-16a^2b^3)\div 8ab$

4) $\frac{16c^4d^4-24c^2d^2}{4c^2d^2}$

5) $Divide\ (a^3b^2-a^2b^3) by\ (2ab^2)$

6) $\frac{4x^2+3x+12}{2x}$