

Section 11.7

DIVIDING POLYNOMIALS

7) Dividing Polynomials

- ◉ Rewrite the expression as separate fractions
- ◉ Reduce each fraction by canceling like terms

Examples

$$1.) \frac{6x-4}{2} = \frac{6x}{2} - \frac{4}{2} \\ = 3x - 2$$

$$2.) \frac{x^3 - 4x^2 + 8x}{x} = \frac{x^3}{x} - \frac{4x^2}{x} + \frac{8x}{x} \\ = x^2 - 4x + 8$$

$$3.) \frac{4x^2 + 8x}{4x} = \frac{4x^2}{4x} + \frac{8x}{4x} \\ = x + 2$$

$$4.) \frac{x^3 - 4x^2}{6x} = \frac{x^3}{6x} - \frac{4x^2}{6x} \\ = \frac{1}{6}x^2 - \frac{2}{3}x$$

Examples

$$5.) \frac{18x^3 - 12x^2 + 2}{6}$$

$$\frac{18x^3}{6} - \frac{12x^2}{6} + \frac{2}{6}$$
$$3x^3 - 2x^2 + \frac{1}{3}$$

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

$$\frac{x^3}{2x} - \frac{4x^2}{2x} + \frac{5x}{2x}$$
$$\frac{x^2}{2} - 2x + \frac{5}{2}$$

CLASSWORK

- Wkst 11.7 A # 1-12

HOMEWORK

⦿ 687 # 15-22