

Intro to College Math: Chapter 5.7
Division by a monomial

1. Perform the following division (find the following quotient).

$$\frac{54x + 18y}{6} =$$

$$\frac{54x}{6} + \frac{18y}{6} =$$

$$9x + 3y$$

To Divide:

- * separate each term on top and include the denominator under each one.
- * Then use calculator to simplify each fraction.

2. Perform the following division (find the following quotient).

$$\frac{56x - 72y}{-8} =$$

$$\frac{56x}{-8} - \frac{72y}{-8}$$

$$-7x + 9y$$

To Divide:

- * separate each term on top and include the denominator under each one.
- * Then use calculator to simplify each fraction.

* Remember: a $\frac{(-)}{(-)} = (+)$

3. Perform the following division (find the following quotient).

$$\frac{18xy - 48x}{6x}$$

$$\frac{18\cancel{x}y}{6\cancel{x}} - \frac{48\cancel{x}}{6\cancel{x}}$$

$$\boxed{3y - 8}$$

To Divide:

- * separate each term on top and include the denominator under each one.
- * Then use calculator to simplify each fraction.
- * Then since you have the exact same variable on the top and the bottom, you can cancel them out.

4. Perform the following division (find the following quotient).

$$\frac{32xy^2 - 56x}{-8x}$$

$$\frac{32\cancel{x}y^2}{-8\cancel{x}} - \frac{56\cancel{x}}{-8\cancel{x}}$$

$$\boxed{-4y^2 + 7}$$

To Divide:

- * separate each term on top and include the denominator under each one.
- * Then use calculator to simplify each fraction.
- * Then since you have the exact same variable on the top and the bottom, you can cancel them out.