

2.7 Multiplying/Dividing Expressions

Review - Exponent
Base
Power

Definition

$$x \cdot x = x^2$$

$$x + x = 2x$$

$$3x^2 = 3 \cdot x \cdot x$$

$$4 \cdot x = 4x$$

Multiplying expressions can involve the commutative, associative, and/or distributive property.

Examples: $2x(3x-4)$ ← Used distributive property

$$6x^2 - 8x$$

Are they like terms?

No.

$$(5x + 3y - 7) - 3(2x - y)$$

$$\underline{5x} + \underline{3y} - 7 - \underline{6x} + \underline{3y}$$

$$-x + 6y - 7$$

Dividing Expressions - Each term is divided by the divisor (bottom # or term)

Example: $\frac{2x+6}{2} = \frac{2x}{2} + \frac{6}{2} = x+3$

or

$\div 2$ is the same as multiplying by $\frac{1}{2}$

We could also do $\frac{1}{2}(2x+6)$ and use dist.
 $= x+3$

Example: $\frac{8x-4}{-4} = \frac{8x}{-4} - \frac{4}{-4}$
 $= -2x - (-1)$
 $= -2x + 1$

Example: $\frac{8x^2+2x}{2x} = \frac{8x^2}{2x} + \frac{2x}{2x}$
 $= 4x + 1$

H.W.

Pg 101

(#17, 20, 24, 27,
44, 47, 49)