

Chapter 2-4 10/25

Simplifying Variable Expressions.

SWBAT: use properties of Addition and Multiplication to simplify variable expressions.

Vocabulary

TERM - is a part of an expression separated by addition or subtraction.

$$(2+4) \text{ or } (2t-4)$$

$2t$  is a term. Once a solution is reached.

$$t=5 \quad 2 \cdot t = 10$$

Numerical Coefficient

is a number multiplied by a variable.

$$\underline{2}t \quad 2 \text{ is the Num. Coeff.}$$

## Like Terms

have the same  
variables

$$2\underline{t} + 5\underline{t} = \underline{7t}$$

Like terms can be  
combined.

To ADD or SUB the Num. Coef.

Can NOT  
combine  $4 + 6x = 10x$   
in its simplest  
form!

To Simplify an Expression

Replace it with an equal  
Expression that  
contains no Like Terms  
or parenthesis.

$$4(5b)$$

Associative Pr.  
of mult.

$$(4 \cdot 5) \cdot b$$

$$20b \quad * \text{ Simple}$$

Invisible # 1

a is a VARIABLE

The Identity  
Property of Mult  
exists when  
there is "NO"  
Numerical Coeff.

$$a = 1a \text{ or } 1 \cdot a$$

CONSTANT - a quantity  
with a fixed (unchanged)  
value in a math sentence.

$$2t + \underline{\underline{8}} \leftarrow \text{Constant}$$

$$4x + \underline{3}(3 + x) =$$

1st Step  
Distr. Pr.  $4x + \underline{3} \cdot 3 + \underline{3} \cdot x$

Like  
Terms.  $\underline{4x} + 9 + \underline{3x}$

Comm  
Pr.  $4x + 3x + 9$

DONE  
Simplified  $7x + 9$

- 1.) Parenthesis?
- 2.) Like Terms?