Name: ______ Period: _____ Date: _____

The Distributive Property Guide Notes

DISTRIBUTIVE PROPERTY

For any numbers $oldsymbol{a}$, $oldsymbol{b}$, and $oldsymbol{c}$, the product of $oldsymbol{a}$ and $(oldsymbol{b}+oldsymbol{c})$ is:

For any numbers $m{a}$, $m{b}$, and $m{c}$, the product of $m{a}$ and $(m{b}-m{c})$ is:

Sample Problem 1: Rewrite using the distributive property, then evaluate.

- a. 8(10+4)
- b. (5+7)12
- c. 5(100-72)
- d. $\left(2+\frac{1}{5}\right)35$
- e. (10+7)5

TERM is a number, a variable or a product or quotient of numbers and variables.

LIKE TERMS are terms that contain the same variables, with corresponding variables having the same power.

SIMPLIFYING EXPRESSIONS:

Distributive property is used to combine like terms by adding their coefficients. A simplified expression must not have grouping symbols and fractions are reduced to its lowest term.

Sample Problem 2: Simplify.

a.
$$18x + 3x$$

b.
$$5x^2 + 2 - x^2$$

c.
$$3-2(4+x)$$

d.
$$-3(2x^2+4x-1)+5x$$

e.
$$5(x-7y) + 8(3x+2y)$$

Sample Problem 3: Manny runs a restaurant. One day, a total of 50 steaks are sold. Each steak cost \$14.95 and received an average tip of \$1 for each. Write the expression that determines the total amount he earned. How much did Manny earned?