1 - 5
The Distributive Property

What does it mean??

$$a(b+c) = ab+ac$$

$$a(b-c) = ab-ac$$

$$(b+c)a = ab+ac$$

$$(b-c)a = ab-ac$$

Rewrite using the distributive property and simplify.

Ex: 8(10 + 4)

$8 \cdot 10 + 8 \cdot 4$

$80 + 32$

$\boxed{112}$

Ex: (12 - 3)6

$6 \cdot 12 - 6 \cdot 3$

$72 - 18$

$\boxed{54}$

Make mental math easier.

Ex: 15•99

$15(100-1)$

$15 \cdot 100 - 15 \cdot 1$

$1500 - 15$

$\boxed{1485}$

Ex: 12(103)

$12(100+3)$

$12 \cdot 100 + 12 \cdot 3$

$1200 + 36$

$\boxed{1236}$

Ex: $35(2\frac{1}{5})$

$35\left(2+\frac{1}{5}\right)$

same as $35 \div 5$

$35 \cdot 2 + 35 \cdot \frac{1}{5}$

$70 + 7$

$\boxed{77}$

Rewrite and simplify.

Ex: $5(g - 9)$ $5g - 45$

Ex: $3(2x^2 + 4x - 1)$ $6x^2 + 12x - 3$

like terms: contain the same variables to the same power

like: $3x^2$ and x^2 ; $5y$ and $\frac{1}{2}y$

unlike: $5x^2$ and $5x$; $3y^3$ and $2y$

equivalent expressions: denote the same value

Ex: $5x^2 + 2x^2$ and $7x^2$

simplest form: when an expression has no more like terms or parentheses left

coefficient: number part of a term

Ex: What is the coefficient of $7x^3$? 7

Ex: What is the coefficient of y? 1

Simplify.

Ex: $15x + 12x$ $27x$

Ex: $5y^2 + 7y - 2y^2$

$3y^2 + 7y$

Homework:

1-5 WS