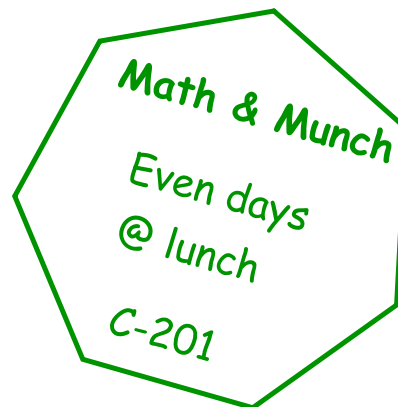


11-17-17

Aim: SWBAT continue to simplify expressions using the distributive property.

HW: Worksheet
Quiz Tuesday

Do Now: Quiz



Simplify each expression.

1) $k + 12k + 21$

$$k + 12k = 13k$$

$$21 = 21$$

$$13k + 21$$

2) $13a + 9a + 8$

$$13a + 9a = 22a$$

$$8 = 8$$

$$22a + 8$$

3) $y + 9 + 14y + 27$

$$y + 14y = 15y$$

$$9 + 27 = 36$$

$$15y + 36$$

4) $4x + 7y + 11x + 8z$

$$4x + 11x = 15x$$

$$7y = 7y$$

$$8z = 8z$$

$$15x + 7y + 8z$$

5) $12a - 9a + 4d$

$$12a - 9a = 3a$$

$$4d = 4d$$

$$3a + 4d$$

6) $17x + 15 - 3x$

$$17x - 3x = 14x$$

$$15 = 15$$

$$14x + 15$$

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

$$-x + 3x = 2x$$

$$2y - 5y = -3y$$

$$2x - 3y$$

8) $-7x - 2x - 8y - 2y$

$$-7x - 2x = -9x$$

$$-8y - 2y = -10y$$

$$-9x - 10y$$

9) $12n - 16 + 2 - 17n$

$$12n - 17n = -5n$$

$$-16 + 2 = -14$$

$$-5n - 14$$

10) $-5m - 20 + 8m - 8$

$$-5m + 8m = 3m$$

$$-20 - 8 = -28$$

$$3m - 28$$

11) $-15 - 10b + 5 - b$

$$-10b - b = -11b$$

$$-15 + 5 = -10$$

$$-11b - 10$$

12) $6x + 3y - 2x - 6y$

$$6x - 2x = 4x$$

$$3y - 6y = -3y$$

$$4x - 3y$$

$$-15x - 10x^2 + 5x - x^2$$

$$-11x^2 - 10x$$

AIM: SWBAT simplify expressions.

DO NOW:

Simplify each expression by using the Distributive Property.

1) $7(n + 6)$

$$7n + 42$$

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

$$-8x - 6$$

3) $5(3x - 12)$

$$15x - 60$$

4) $-6(5y - 10)$

$$-30y + 60$$

5) $-(2a - 8c + 4)$

$$-2a + 8c - 4$$

6) $x(4y + 15)$

$$4xy + 15x$$

CLASSWORK:

Simplify an expression by:

- GETTING RID OF PARENTHESES using the Distributive Property.
- COMBINE LIKE TERMS using your Integer Rules. (Add & keep, Subtract & think)

Simplify each expression.

1) $5(x + 2y) - 4y - 7x$

$$5x + 10y - 4y - 7x$$

$$5x - 7x = -2x$$

$$10y - 4y = 6y$$

$$-2x + 6y$$

2) $-2(2x + 1) + 3x - 5$

$$-4x - 2 + 3x - 5$$

$$-4x + 3x = -x$$

$$-2 - 5 = -7$$

$$-x - 7$$

3) $8y - 2(3y - 4) + 2$

$$8y - 6y + 8 + 2$$

$$8y - 6y = 2y$$

$$8 + 2 = 10$$

$$2y + 10$$

4) $5(2 - 3x) + 2(4x + 2)$

$$10 - 15x + 8x + 4$$

$$-15x + 8x = -7x$$

$$10 + 4 = 14$$

$$-7x + 14$$

5) $(6y + 4) - (8y - 5)$

$$6y + 4 - 8y + 5$$

$$6y - 8y = -2y$$

$$4 + 5 = 9$$

$$-2y + 9$$

6) $(5y + 12) + (4y - 10)$

$$5y + 12 + 4y - 10$$

$$5y + 4y = 9y$$

$$12 - 10 = 2$$

$$9y + 2$$

Simplify each expression.

7) Find the sum of $(3x - 12)$ and $(4x - 3)$

$$\begin{aligned} (3x-12) + (4x-3) \\ 3x-12+4x-3 \\ 7x-15 \end{aligned}$$

8) Find the difference of $(20x + 9)$ and $(5x - 9)$

$$\begin{aligned} (20x+9) - (5x-9) \\ 20x+9-5x+9 \\ 15x+18 \end{aligned}$$

* 9) Find the result when $(-30x + 12y)$ is added to $(-14x - 40y)$

$$\begin{aligned} (-14x-40y) + (-30x+12y) \\ -14x-40y-30x+12y \\ -44x-28y \end{aligned}$$

**10) Find the result when $(x + 13)$ is subtracted from $(17x + 34)$

$$\begin{aligned} (17x+34) - (x+13) \\ 17x+34-x-13 \\ 16x+21 \end{aligned}$$

11) $5(x + 2w) - 4w - 7x$

$$\begin{aligned} (5x) + (10w) - 4w - 7x \\ 6w - 2x \end{aligned}$$

12) $-2(2x + 1) + 3x - 5x$

$$\begin{aligned} -4x - 2 + 3x - 5x \\ -6x - 2 \end{aligned}$$

13) $(3xy - 4x) + (2xy + x)$

$$\begin{aligned} 3xy - 4x + 2xy + x \\ 5xy - 3x \end{aligned}$$

14) $(2y - 3x) + (4x + 2y)$

$$\begin{aligned} 2y - 3x + 4x + 2y \\ x + 4y \end{aligned}$$

15) $(6y + 4x) - (8y - 5x)$

$$\begin{aligned} 6y + 4x - 8y + 5x \\ 9x - 2y \end{aligned}$$

16) $2(2c + 8d) - 5(c - 3d)$

$$\begin{aligned} 4c + 16d - 5c + 15d \\ -c + 31d \end{aligned}$$

HOMEWORK - SIMPLIFYING EXPRESSIONS

Given the expression: $9x^2 + 11x - 12 - 5x^2 + 3x - 8$

- 1) How many terms are in this expression? _____
- 2) State the coefficient of the fourth term. _____
- 3) State the coefficient of the second term. _____
- 4) Name the constant term(s). _____
- 5) State a like term for the first term. _____
- 6) State a like term for the second term. _____
- 7) State a like term for the third term. _____
- 8) I know an expression is in simplest form when it has:

Simplify each expression.

9) $-7(x - 8)$

10) $9(2x + 8)$

11) $-3(-8x + 12)$

12) $5(-8x + 10)$

13) $y(4x - 7)$

14) $-(6x - 13)$

15) $6(x + 2) + 8x$

16) $18y + 5(7 + 3y)$

17) $-(x + 2) - 8x$

18) $-7x^2 - 2x - 8x^2 + x$

19) $-16mn + 4m + 2mn - m$

20) $-30xy - 5x + 2xy - 7x$