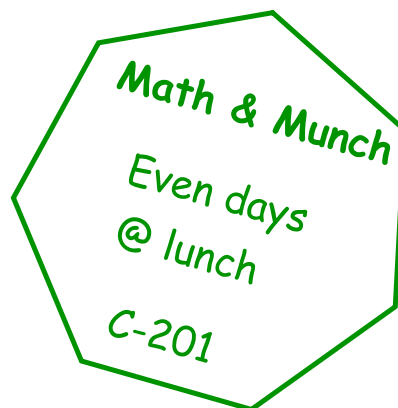


11-14-17

Aim: SWBAT begin to simplify using the distributive property.

HW: Quiz Friday (parts of an expression and distributive property)

Do Now: Front of WS



HOMEWORK - PARTS OF AN EXPRESSION

Place each pair of terms into the appropriate column.

x and $15x$, 8 and 9 , n^2 and $5n^2$, $18xy$ and $22xz$, 12 and 15 , $17n$ and $33n^3$, $22mn$ and $12mn$

LIKE TERMS	UNLIKE TERMS
x and $15x$ 8 and 9 n^2 and $5n^2$ 12 and 15 $22mn$ and $12mn$	$18xy$ and $22xz$ $17n$ and $33n^3$

Given the expression: $12y + 21x + 15 - 5y + 2x - 9$

- List the 6 terms $12y$, $21x$, 15 , $-5y$, $2x$, -9
- List the 4 coefficients 12 , 21 , -5 , 2
- List the constant(s) 15 and -9
- A like term for the first term $-5y$
- A like term for the second term $2x$
- A like term for the third term -9

Given the expression: $14n + 29 + 13s - 22 - 3s + 4n$

- How many terms are in this expression? 6
- List the constant(s) 29 and -22
- A like term for the first term $4n$
- A like term for the second term -22
- A like term for the third term $-3s$
- State the coefficient of the third term 13
- State the coefficient of the fifth term -3
- State the coefficient of the first term 14

Do Now: If there are like terms, circle them. If there are not, circle "none".

1. $15x + 5 + 3x - 6y$ none

2. $3a + 7ab + 4a - 8b$ none

3. $6r - 8 + 12s + 5$ none

4. $12mn + 11 + 22nm$ none

5. $4xy + 6x + 8y$ none

List the terms, like terms, coefficients, and constants in each expression.

$$\boxed{3x} + \boxed{4x} + \boxed{2}$$

Terms: $3x, 4x, 2$

Like Terms: $3x$ and $4x$

Coefficient(s): 3 and 4

Constant(s): 2

$$\boxed{5y} + \boxed{9z} - \boxed{7} - \boxed{3y}$$

Terms: $5y, 9z, -7, -3y$

Like Terms: $5y$ and $-3y$

Coefficient(s): $5, 9, -3$

Constant(s): -7

$$\boxed{-9y} + \boxed{7y} + \boxed{5z}$$

Terms: $-9y, 7y, 5z$

Like Terms: $-9y$ and $7y$

Coefficient(s): $-9, 7, 5$

Constant(s): none

$$\boxed{2} - \boxed{x} - \boxed{4y} + \boxed{x} - \boxed{y} - \boxed{11}$$

Terms: $2, -x, -4y, x, -y, -11$

Like Terms: $-x$ and x ; $-4y$ and $-y$;
 2 and -11

* Coefficient(s): $-1, -4, 1, -1$

Constant(s): 2 and -11

The Distributive Property

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

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

$$\begin{aligned} 15(26) &= 15(20 + 6) \\ &= 15(20) + 15(6) \\ &= 300 + 90 \\ &= 390 \end{aligned}$$

$$\begin{aligned} 15(26) &= 15(30 - 4) \\ &= 15(30) - 15(4) \\ &= 450 - 60 \\ &= 390 \end{aligned}$$

Simplify

1. Eliminate parentheses by distributing
2. Combine like terms

Make sure your final answer meets the following requirements

- No double signs
- Alphabetical Order
- Constant goes last

Use the distributive property to simplify.

1. Remove parentheses.
2. Combine like terms.

$$3(x + 10) = 3x + 30$$

$$12(-y + z) = -12y + 12z$$

$$5(x - y + 3) = 5x - 5y + 15$$

$$10(x - 5) = 10x - 50$$

$$x(-a - b) = -ax - bx$$

Use the distributive property to simplify.

1. Remove parentheses.
2. Combine like terms.

$$3(2x + 10) = 6x + 30$$

$$12(-2y + 2z) = -24y + 24z$$

$$5(2x - 2y + 3) = 10x - 10y + 15$$

$$10(2x - 5) = 20x - 50$$

$$x(-a - 2b) = -ax - 2bx$$