

11-8-18

Aim: SWBAT begin simplifying expressions combining like terms.

HW: Packet Page 10

Quiz Tuesday (Packet Pages 1 - 10)

Do Now: Packet Page 8 # 7 - 12

**HOMEWORK**

Place each pair of terms into the appropriate column.

$x$  and  $15x$

$n^2$  and  $5n^2$

$18xy$  and  $22xz$

12 and 15

8 and 9

$22mn$  and  $12mn$

$17n$  and  $33n^3$

| LIKE TERMS                                      | UNLIKE TERMS                           |
|---|--|
| $x$ and $5x$<br>$8$ and $9$<br>$n^2$ and $5n^2$ | $18xy$ and $22xz$<br>$17n$ and $33n^3$ |

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

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

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

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

Aim: SWBAT simplify expressions by combining like terms.

**Do Now:**

Simplify each expression by using the Distributive Property.

- 1)  $7(n + 6) =$  \_\_\_\_\_      2)  $-2(4x + 3) =$  \_\_\_\_\_      3)  $5(3x - 12) =$  \_\_\_\_\_  
 4)  $-6(5y - 10) =$  \_\_\_\_\_      5)  $-(2a - 8c + 4) =$  \_\_\_\_\_      6)  $x(4y + 15) =$  \_\_\_\_\_

Use the expression to answer the following:  $12x + 10y - 7y + x + 24$

- 7) How many terms are in this expression? 5      8) The coefficient of the second term 10  
 \*9) The coefficient of the fourth term 1      10) A like term for the first term x  
 11) A like term for the second term -7y      12) A constant term 24

**CLASSWORK:**

I know an expression is in SIMPLEST FORM when:

- 1) parentheses are eliminated  
 2) all like terms are combined

Simplify each expression by combining like terms.

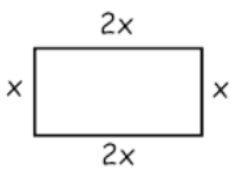
Use boxes, circles and triangles to identify different pairs of like terms.

|   |                                  |  |  |
|---|----------------------------------|--|--|
| 1   | $10x + 7 + 6x$<br><u>16x + 7</u> | $21n + 15 + n - 2$<br><u>22n + 13</u>                        | $-13x + 21y - 14x - y$<br>$-13x - 14x = -27x$<br>$21y - y = 20y$<br>$-27x + 20y$<br><u>20y - 27x</u> |
| $\begin{array}{r} x \\ 10x \\ 6x \\ \hline 16x \end{array}$ |                                  | $\begin{array}{r} n \\ +21n \\ +n \\ \hline 22n \end{array}$ | $\begin{array}{r} 21-1 \\ -13-14 \\ \hline -27 \end{array}$  |

|   | A   | B   | C                                  |
|---|---|---|------------------------------------|
| 2 | $5x^2 - 20x - 8x^2 - 8x$                  | $6ab + 3a - 2ab - 6a$   | $3xy - 12x + 2xy - x$              |
| 3 | * $k + 12k + 21$<br>$13k + 21$            | * $13a + 9a + 8$<br>$22a + 8$                                       | * $y + 9 + 14y + 27$<br>$15y + 36$ |
| 4 | * $4x + 7y + 11x + 8z$<br>$15x + 7y + 8z$ | $12a - 9a + 4d$   | $17x + 15 - 3x$                    |
| 5 | $-x + 2y + 3x - 5y$                       | * $-7x - 2x - 8y - 2y$<br>$-7x - 2x = -9x$<br>$-10y$<br>$-9x - 10y$ | $12n - 16 + 2 - 17n$               |
| 6 | $-5m - 20 + 8m - 8$                       | $-15x - 10x^2 + 5x - x^2$   | $6x + 3y - 2x - 6y$                |

## HOMEWORK

Simplify each expression by combining like terms.

|    | A   | B                    | C                        |
|----|---|----------------------|--------------------------|
| 7  | $4a + 3a$   | $-9x + 2x$           | $-6x^2 - 3x^2 - 4x - 9x$ |
| 8  | $-5m - m + 7$   | $13xy - 17 + xy - 1$ | $4a - 3c - 7a - 3c$      |
| 9  | $4x + 7y + 11x + 8z$  | $7x + 11xy + x + 9$  | $mn + 4m + 6n + 2mn$     |
| 10 | <p>Find the perimeter of the rectangle in simplest form. (Remember, perimeter is the distance around the outside of a polygon.)</p>  |                      |                          |