

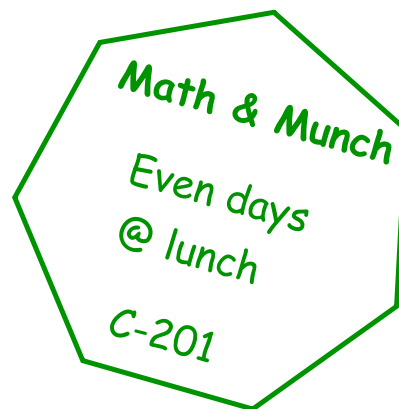
11-16-17

Aim: SWBAT simplify expressions by combining like terms.

HW: WS

Quiz tomorrow

Do Now: On WS



$$2(x+4) = 2x+8$$

$$5(3x+4) = 15x+20$$

$$4(-3x+1) = -12x+4$$

Distributing a Positive

· signs stay the
same

$$-2(x+4) = -2x-8$$

$$-5(3x+4) = -15x-20$$

$$-4(-3x+1) = 12x-4$$

Distributing a Negative

· signs change

AIM: SWBAT to simplify expressions by combining like terms.

DO NOW:

Identify the following in the expression: $12x + 10y - 7y + x + 24$

- 1) How many terms are in this expression? 5 2) The coefficient of the second term 10
 *3) The coefficient of the fourth term 1 4) A like term for the first term x
 5) A like term for the second term -7y 6) A constant term 24

CLASSWORK:

I know an expression is in SIMPLEST FORM when:

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

The word **combine** means to **add**, but you need to use your Integer rules for addition.
 Same signs → add and keep Different signs → subtract and think

Simplify each expression by combining like terms.

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

1) $10x + 7 + 6x$

$10x + 6x = 16x$
 $7 = 7$

$16x + 7$

2) $21n + 15 + n - 2$

$21n + n = 22n$
 $15 - 2 = 13$

$22n + 13$

3) $-13x + 21y - 14x - y$

$-13x - 14x = -27x$
 $21y - y = 20y$

$-27x + 20y$

4) $5x^2 - 20x - 8x^2 - 8x$

$5x^2 - 8x^2 = -3x^2$
 $-20x - 8x = -28x$

$-3x^2 - 28x$

5) $6ab + 3a - 2ab - 6a$

$6ab - 2ab = 4ab$
 $3a + 6a = 9a$

$4ab + 9a$

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

$3xy + 2xy = 5xy$
 $-12x - x = -13x$

$5xy - 13x$

Homework

Simplify each expression.

1) $k + 12k + 21$

2) $13a + 9a + 8$

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

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

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

6) $17x + 15 - 3x$

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

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

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

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

11) $-15x - 10x^2 + 5x - x^2$

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