

11-14-18

Aim: SWBAT translate and simplify expressions.

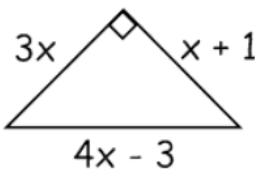
HW: Top half of Packet Page 16

Quiz ???

Do Now: Page 11

Aim: SWBAT simplify expressions.

Do Now: Simplify each expression by combining like terms.

	A	B	C
1	$\boxed{-5n + 7n}$ $2n$	$\boxed{-10x - 6x}$ $-16x$	$\boxed{21n - n}$ $20n$
2	$\boxed{13x + 21y} + \boxed{14x + 29y}$ $27x + 50y$	$\boxed{13ab - 7a - 2ab} - \boxed{6a}$ $11ab - a$	$\boxed{-20y^2 - 30y} + \boxed{8y^2 - 18y}$ $-12y^2 - 48y$
3	<p>Find the perimeter of the triangle in simplest form. (Remember, perimeter is the distance around the outside of a polygon.)</p>  $P = (3x) + (x + 1) + (4x - 3)$ $P = \boxed{3x} + \boxed{x} + \boxed{1} + \boxed{4x} - \boxed{3}$ $P = 8x - 2 \text{ units}$		

**Simplifying an Expression requires a two-step process in a specific order.**

Step 1: Eliminate parentheses by distributing

Step 2: Combine like terms

Answers also have requirements. Most often, answers should be in standard form. That means...

- No double signs
- Terms are in alphabetical order
- The constant is last

HOMWORK

Simplify each expression.

	A	B	C
1	$6(x+2) + 8x$ $(6x+12) + 8x$ $14x+12$	$18y + 5(7+3y)$ $(18y+35) + 15y$ $33y+35$	$-(x+2) - 8x$ $(-x-2) - 8x$ $-9x-2$
2	$-7x^2 - 2x - 8x^2 + x$ $-15x^2 - x$	$-16mn + 4m + 2mn - m$ $-14mn + 3m$	$-30xy - 5x + 2xy - 7x$ $-28xy - 12x$
3	$5(x+2y) - 4y - 7x$ $(5x+10y) - 4y - 7x$ $-2x+6y$	$-2(2x+1) + 3x - 5$ $(-4x-2) + 3x - 5$ $-x-7$	$8y - 2(3y-4) + 2$ $(8y-6y) + 8 + 2$ $2y+10$
4	$-3(2x-4)$ $-6x+12$	$-5(-8x-2y+4)$ $40x+10y-20$	$-4(2x-6) - 7x - 5$ $(-8x+24) - 7x - 5$ $-15x+19$
5	$-7(-2+4x) - 13x + 25$ $(14-28x) - 13x + 25$ $-41x+39$	$-10(-5x+8) - 15 + 25x$ $(50x-80) - 15 + 25x$ $75x-95$	

Aim: SWBAT translate and simplify expressions.

KEYWORDS & PHRASES

ADDITION	SUBTRACTION
Sum ( )	Difference ( - )
is added to	is subtracted from

Adding Expressions

A)  $(x^2 + 9x - 5) + (-4x^2 - 12x + 5)$   
 $x^2 + 9x - 5 - 4x^2 - 12x + 5$

$-3x^2 - 3x$

B)  $(8y - 9) + (-6y + 2)$   
 $8y - 9 - 6y + 2$

$2y - 7$

	A <i>keep signs</i>	B	C
1	$(5y + 12) + (4y - 10)$ $5y + 12 + 4y - 10$ $9y + 2$	$(3xy - 4x) + (2xy + x)$	$(2y - 3x) + (4x + 2y)$ $2y - 3x + 4x + 2y$ $x + 4y$

2	$(x + 8) + (-3 + 5x)$	$5(2 - 3x) + 2(4x + 2)$
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3	<p>Find the <u>sum</u> of <math>(3x - 12)</math> and <math>(4x - 3)</math>.</p> $(3x - 12) + (4x - 3)$	<p>Find the result when <math>(-30x + 12y)</math> is added to <math>(-14x - 40y)</math>.</p> $(-14x - 40y) + (-30x + 12y)$
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**Subtracting Expressions**

A)  $(5y - 8) - (3y - 2)$

$5y - 8 - 3y + 2$

$2y - 6$

B)  $(4n^2 + 11) - (-10n^2 + 7)$

$4n^2 + 11 + 10n^2 - 7$

$14n^2 + 4$

	<i>A 2<sup>nd</sup> group's signs become off.</i>		
4	$(6y + 4) - (8y - 5)$ $\boxed{6y} + \boxed{4} - \boxed{8y} + \boxed{5}$ $-2y + 9$	B	$(12x - 15) - (x + 5)$ $\boxed{12x} - \boxed{15} - \boxed{x} - \boxed{5}$ $11x - 20$
5	$-5(-3x - 12) - (2x + 14)$		$2(2c + 8d) - 5(c - 3d)$
6	Find the difference of $20x + 9$ and $5x - 9$ .		Find the result when $x + 13$ is <b>subtracted from</b> $17x + 34$ .

**HOMEWORK****Simplify each expression.**

1)  $-3(-7x + 5) - 2(3x - 6)$

2)  $(-50x + 4) + 3(7x - 25)$

3) Find the **sum** of  $5x - 12$  and  $14x - 13$ .4) Find the **difference** of  $7x + 9$  and  $15x - 19$ .

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**Aim: SWBAT simplify expressions with rational numbers.****Do Now: Simplify each expression.**

A)  $(-5.7x + 8.6) - (15.2 + 2.5x)$

B)  $\left(\frac{3}{4}x - \frac{1}{4}\right) - \left(\frac{3}{4}x - \frac{5}{6}\right)$

**CLASSWORK:****Simplify each expression.**

1)  $-0.5 - 0.8x - 2.34 + 2.5x$

2)  $\frac{1}{5}x - \frac{1}{2} + \frac{3}{5}x - \frac{6}{10}$