

11-14-18

Aim: SWBAT translate and simplify expressions.

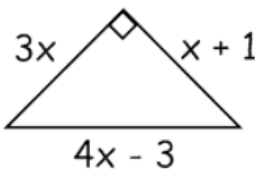
HW: Top half of Packet Page 16

Quiz Friday

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>  $P = (3x) + (x + 1) + (4x - 3)$ $P = \boxed{3x + x + 1 + 4x - 3}$ $P = 8x - 2 \text{ units}$		

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 is added to	Difference 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	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 $(3x - 12)$ and $(4x - 3)$</p> $[(3x - 12) + (4x - 3)]$ $3x - 12 + 4x - 3$ $7x - 15$	<p>Find the result when $-30x + 12y$ is added to $(-14x - 40y)$.</p> $(-14x - 40y) + (-30x + 12y)$ $-14x - 40y - 30x + 12y$
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$-44x - 28y$

Subtracting Expressions

change signs to opp.

A) $(5y - 8) - (3y - 2)$
 $5y - 8 - 3y + 2$
 $2y - 6$

B) $(4n^2 + 11) - (-10n^2 + 7)$
 $4n^2 + 11 + 10n^2 - 7$
 $14n^2 + 4$

	A	B	C
4	<p>* $(6y + 4) - (8y - 5)$ $6y + 4 - 8y + 5$ $-2y + 9$</p>	$(6y + 4x) - (8y - 5x)$	$(12x - 15) - (x + 5)$

5	$-5(-3x - 12) - (2x + 14)$	$2(2c + 8d) - 5(c - 3d)$
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6	<p>Find the <u>difference</u> of $20x + 9$ and $5x - 9$.</p> <p>$[(20x + 9) - (5x - 9)]$ $20x + 9 - 5x + 9$ $15x + 18$</p>	<p>Find the result when $x + 13$ is <u>subtracted from</u> $17x + 34$.</p> <p>$(17x + 34) - (x + 13)$ $17x + 34 - x - 13$ $16x + 21$</p>
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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 $15x - 19$.

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