Name _____

Date _____Pd_____

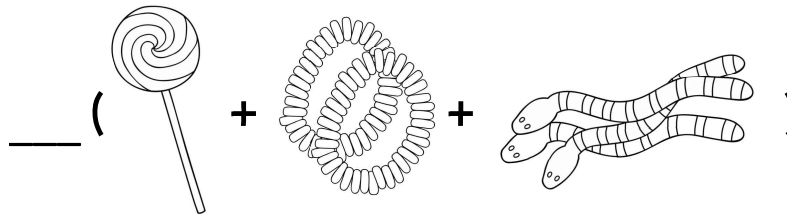# SIMPLIFYING EXPRESSIONS WITH DISTRIBUTIVE PROPERTY

DISTRIBUTIVE PROPERTY	• Multiply each term _____ the parentheses by the number _____ the parentheses. • Be careful with your _____ when multiplying positives and negatives!	$a(b + c) \rightarrow$ _____ $a(b - c) \rightarrow$ _____

At a candy shop, a group of three friends each bought a lollipop (p), two candy bracelets (b) and three gummy worms (g). Each individual purchase can be represented by the pictures inside the parentheses below.

___ (🍭 + 〇 + 〰)

a. What number should go outside the parentheses?

b. Write an expression under each picture to represent the item(s).

c. Distribute and simplify the expression.

In 1-3, apply the distributive property to simplify each expression.

1. 8(2g – 9)	2. -5(13d + 11)	3. -4(-m – 8)
      _____	 _____	 _____

4. Draw a line connecting each expression on the top row with its simplified expression below.

4(2x + 3)	4(2x – 3)	-4(2x + 3)	-4(2x – 3)

8x – 12	-8x – 12	8x + 12	-8x + 12

In 5-11, simplify the expression by distributing and combining like terms if necessary.

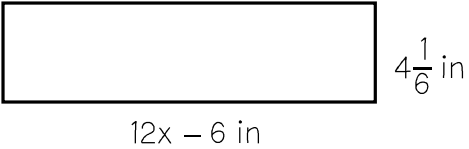|		
5. $-8(4y - 5)$ _____	6. $12.5(3 + 2w)$ _____	7. $\frac{1}{2}(6m + 10)$ _____
8. $\frac{2}{3}(3f + 12) + f$ _____		9. $\frac{3}{4}x + 2(9 - \frac{1}{4}x)$ _____
10. $-10(3.25c + 5.5) - 20$ _____		11. $13 - 0.25(4g + 6)$ _____

12. Simplify an expression for the area of the rectangle.

20 cm

$4\frac{2}{5}x - 5$ cm

_____

13. Mrs. McKinney asked her students to create an expression that includes the distributive property and simplifies to $-10x + 20$. Circle the name of any student who correctly completed the task.

JOURNEY	KAI	LUIS
$2(-5x + 10)$	$-2(-5x + 10)$	$5(-2x + 4)$

Summarize today's lesson:

Name _____

Date _____Pd_____

SIMPLIFYING EXPRESSIONS WITH DISTRIBUTIVE PROPERTY

1. In order for terms to be like terms, they must have… a. The same variable b. The same coefficient c. The same exponent d. Both a and c	2. Which of the following is an example of a set of like terms? a. {19y, 19, y} b. {18x, -x, 21x} c. {15, 20, 25y} d. {-2x, -2y, -2xy}
3. Which is the correct simplified version of the expression $5(-9x + 15)$? a. $-4x + 20$ b. $-45x - 75$ c. $-45x + 75$ d. $14x + 20$	4. Which is the correct simplified version of the expression $-7(2x - 3)$? a. $-14x + 21$ b. $-14x - 21$ c. $-5x - 10$ d. $-14x - 10$

In 5-8, simplify the expression by distributing and combining like terms if necessary.

5. $$\frac{3}{2}(4f - 10)$$ _____	6. $$k + \frac{1}{3}(42 + 48k)$$ _____
7. $9n + 18(2n - 6) + 13$ _____	8. $8.5(4 + 3h) - h$ _____
9. Jules wrote the expression below, but the first term got erased. If the expression simplifies to $-46x + 18$, find the missing term. **_____ − 4(12x − 5) + 2x** _____	10. Write a simplified expression for the area of the rectangle. [rectangle] $4\frac{1}{6}$ in 12x − 6 in _____