Unit: Expressions
Student Handout 6

Name _____

Date _____ Pd _____

DISTRIBUTIVE PROPERTY

Each student below simplified the expressions as shown.

MIGUEL

$6(3 + 9)$
$6(12)$
72

ELISE

$6(3) + 6(9)$
$18 + 54$
72

FRANCES

$6(x) + 6(9)$
$6x + 54$

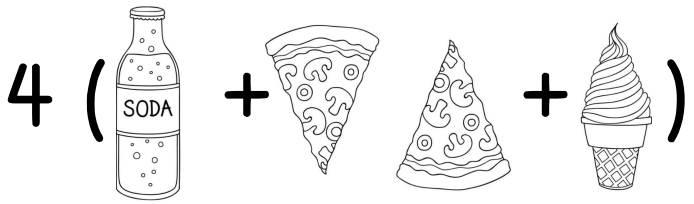
If x=3, will Frances' solution be the same as Miguel's and Elise's? Explain why this might be.

DISTRIBUTIVE PROPERTY

- The distributive property allows us to multiply each term _____ parentheses by the number _____ the parentheses.
- Algebraically, we would say:

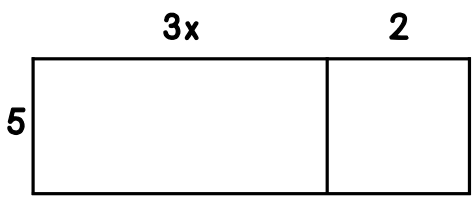
  $a(b + c) =$ _____ $a(b - c) =$ _____
- Be careful with your _____ when multiplying integers.

1. Each of the four members of the Robinson family ordered a drink (d), two slices of pizza (p), and an ice cream cone (c).

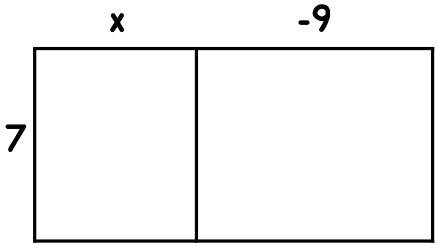


Distribute and write an expression to represent their order: _____

2. Use the area models below to distribute.



a. _____



b. _____

Practice distributing by writing the expression in expanded form and simplest form.

3. $2(x + 6)$ Expanded Form: _____ Simplest Form: _____	4. $7(5 + p)$ Expanded Form: _____ Simplest Form: _____
5. $8(7 - g)$ Expanded Form: _____ Simplest Form: _____	6. $12(r - 9)$ Expanded Form: _____ Simplest Form: _____

Use the distributive property to simplify the expressions below.

7. $5(3x + 10)$	8. $3(x + 4)$	9. $12(6 - 2x)$

10. Mrs. Wentzel wrote three problems on the board and asked her students to identify which one was incorrect. Circle the example that has been distributed incorrectly and write the correct answer.

$4(12w + 15)$ $48w + 60$	$6(3 + 2g)$ $18 + 12g$	$7(9 - 8k)$ $63 - 8k$

11. Which of the following has two equivalent expressions?

A. $12 + (x \cdot 3)$ and $(12 + x) \cdot 3$

B. $12 \cdot x + 3 \cdot x$ and $12(x + 3)$

C. $12(x + 3)$ and $12 \cdot x + 3$

D. $12(x + 3)$ and $12 \cdot x + 12 \cdot 3$

Summarize today's lesson:

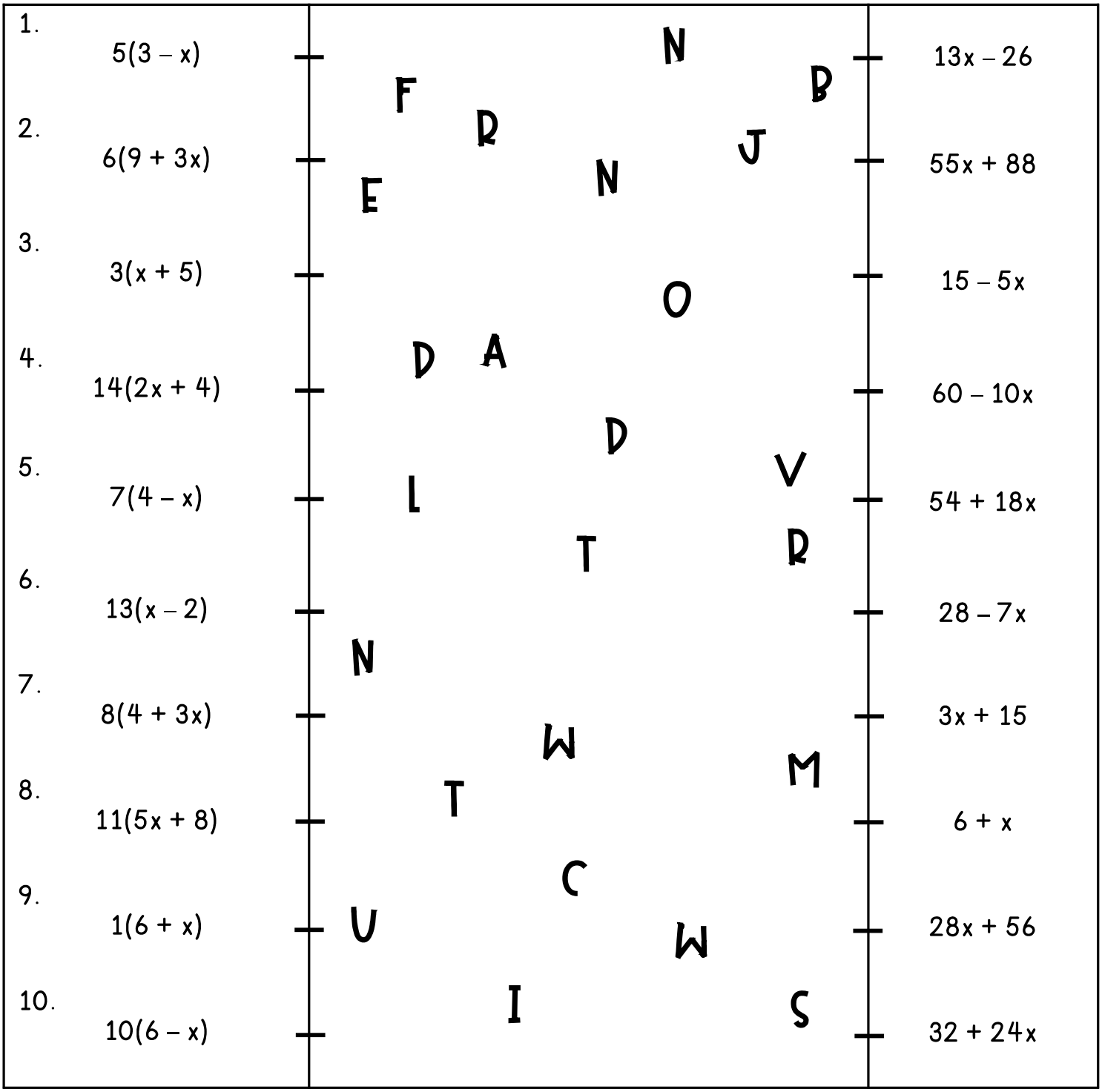
Unit: Expressions
Homework 6

Name _____

Date _____Pd_____

DISTRIBUTIVE PROPERTY

Use the distributive property to simplify each expression. Then, draw a line to the solution in the right column. After all the questions have been completed, unscramble the remaining letters to form the name of a mystery character.



MYSTERY CHARACTER: