Name_____ Date_____ Period_____

LESSON 6-4 · SESSION 1 · PRACTICE · FORM B

Writing Numerical Expressions

Learning target — I can write a numerical expression that matches a situation. · 6.EE.A.2

REMEMBER

- A **numerical expression** has numbers and operations but **no equal sign**.
- "Each" or "per" means **equal groups**, so multiply. Totals of groups are **added**. "5 less than 12" is 12 − 5.
- Use **parentheses** for a part done first: the sum of 4 and 6, tripled, is 3 × (4 + 6).

WORKED EXAMPLE

Ms. Ortiz buys 4 pizzas at $9 each and one $6 salad. Write an expression for the total. Evaluate it.

Step 1 Pizzas are equal groups: 4 × 9.

Step 2 Add the salad: 4 × 9 + 6.

Step 3 Evaluate: 36 + 6 = 42.

Answer **4 × 9 + 6 = $42**

WORDS **numerical expression** *(expresión numérica)* · **evaluate** *(evaluar)* · **product** *(producto)*

PRACTICE

show your work · label units

1. Write a numerical expression for each phrase. Do not evaluate.

a. 6 more than the product of 7 and 2 _____

b. 18 less than 60 _____

c. the sum of 3 and 7, doubled _____

d. the quotient of 56 and 7, minus 3 _____

2. **Art Club Order.** An art club buys 6 sets of brushes at $11 a set and 3 packs of canvas at $8 a pack. It also lays out mosaic tiles in 9 rows of 9.

a. Write one expression for the total supply cost. Evaluate it. _____ dollars

b. Write the mosaic tiles as a power. Evaluate it. _____ tiles

Show your work.

3. **Field Trip.** A field trip costs $12 for each of 25 students, plus one $30 bus fee. Write one expression for the total cost. Evaluate it.

Hint *One product for the students, then add the fee.*

Show your work.

Answer_____ dollars

4. **Square Garden.** A square garden has 14 plants along each side, filling the whole square. Write the number of plants as a power. Evaluate it.

Hint *A square uses the same number twice.*

Show your work.

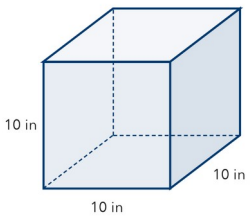
Answer_____ plants

5. Pretzel Bags. Mia fills 4 bags with 15 pretzels each, then eats 6 pretzels. She wrote 4 + 15 − 6 for the pretzels left. Justify or correct her expression.

Hint *Which operation matches the word "each"?*

Answer_____ pretzels

6. Cube Bin. A cube-shaped bin is 10 inches on every edge. Write the number of 1-inch cubes that fill it as a power. Evaluate it.



Hint *A cube has 3 equal dimensions.*

Show your work.

Answer_____ cubes

7. Supply Change. A class buys 10 notebooks at $4 each and 15 pens at $3 each. It pays with $100.

a. Write an expression for the total cost. _____

b. Write an expression for the change. Evaluate it. _____ dollars

c. Why do parentheses help in part b? _____

8. Tickets and Programs. A group buys 5 tickets at $8 each and 4 programs at $5 each. Write one expression for the total cost. Evaluate it.

Hint *Write a product for each item, then add.*

Show your work.

Answer_____ dollars

FIND THE ERROR

explain the mistake, then fix it

9. Jaden's Work. Jaden counts seedlings in 6 trays of 8 seedlings each, plus 9 extra seedlings. He wrote 6 + 8 + 9 = 23. Explain his mistake. Then write and evaluate a correct expression.

TEST PRACTICE

choose the best answer

10. "The sum of 8 and 2, doubled" is written —

A 8 + 2 × 2 **B** 2 × (8 + 2) **C** 8 × 2 + 2 **D** 2 + 8 × 2

11. Parentheses tell you which part to —

A do first **B** skip **C** do last **D** always multiply

SELF-CHECK CODE *find your answer · copy its letter into that problem's box · spell a math word*

60 S	1,000 E	196 M	13 Q	54 B	28 X	330 U	30 Z	90 N	15 R

#2a	#3	#4	#5	#6	#7b	#8

CHECK YOURSELF ☐ I can do this on my own ☐ I need a little help ☐ I have a question about #___