Name_____ Date_____ Period_____

LESSON 6-5 · SESSION 1 · PRACTICE · FORM B

Writing Algebraic Expressions

Learning target – I can write an algebraic expression that uses a variable for an unknown amount. · 6.EE.A.2a

REMEMBER

- A **variable** is a letter for an unknown amount. $5n$ means $5 \times n$.
- In $5n + 12$, 5 is the **coefficient** and 12 is the **constant**.
- An amount that **repeats** goes with the variable. "4 less than x" is $x - 4$.

WORKED EXAMPLE

A taxi charges \$3 to start plus \$2 for each mile. Write an expression for the fare for m miles.

Step 1 Let m = the number of miles.

Step 2 \$2 repeats each mile: $2m$.

Step 3 The \$3 start fee happens once. Join: $2m + 3$.

Answer **$2m + 3$ dollars**

WORDS **variable** *(variable)* · **coefficient** *(coeficiente)* · **constant** *(constante)* · **algebraic expression** *(expresión algebraica)*

PRACTICE

show your work · label units

1. Write an algebraic expression for each phrase.

a. 9 more than a number p _____

b. 8 times a number z _____

c. 10 less than r _____

d. b divided by 6 _____

e. three times s, plus 4 _____

f. 2 less than the product of 5 and j _____

2. **Art Club.** An art club buys one \$9 paint kit for each member. It also pays one \$16 shipping charge. Let m stand for the number of members.

a. Write the paint kit cost as a term. Name its coefficient. _____

b. What is the constant? Why has it no variable? _____

c. Write one expression for the total cost. _____

3. **Concert Tickets.** Each ticket costs $11. There is one $20 service fee for the whole order. Write an expression for the cost of t tickets.

   Hint *The $11 repeats; the $20 happens once.*

   Show your work.

   Expression_____

4. **Car Wash.** A team charges $6 for each car it washes. It pays one $35 fee for supplies. Write an expression for the money left after c cars.

   Hint *Money collected minus the fee.*

   Show your work.

   Expression_____

5. **Phone Plan.** A phone plan costs $12 each month plus a one-time $25 activation charge. Let m be the number of months. Write an expression for the cost.

   Hint *The monthly charge goes with the variable.*

   Show your work.

   Expression_____

6. **Bike Rental.** A bike rental costs $4 for each hour. Tariq wrote $4 + h$ for the cost of h hours. Justify or correct his expression.

   Hint *Does "for each hour" mean add or multiply?*

   Show your work.

   Expression_____

7. **Two Items.** A stand sells juice for $2 a cup and muffins for $3 each. Let j be the cups sold and f be the muffins sold. Write one expression for the money collected.

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

   Show your work.

   Expression_____

8. **Compare Gyms.** Gym A charges a $30 joining fee plus $20 each month.

   a. Write an expression for Gym A's cost after m months. _____

   b. Gym B charges no joining fee but $24 each month. Write its expression. _____

   c. Which gym costs less for 5 months? Show how you know. _____

   Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. Omar's Work. Books cost $9 each and shipping is $5 one time. Omar wrote $9 + 5k$ for k books. Explain his mistake. Then write the correct expression.

_____

_____

_____

TEST PRACTICE

choose the best answer

10. "5 times a number x" is written —

A $5 + x$ **B** $x - 5$ **C** $5x$ **D** $x \div 5$

11. "4 less than a number y" is written —

A $4 - y$ **B** $y - 4$ **C** $4y$ **D** $y + 4$

SELF-CHECK CODE

find your answer · copy its letter into that problem's box · spell a math word

12m + 25 T	4h E	4 + h Q	25m + 12 X	35 – 6c Z	6c – 35 T	11t + 20 E	9m + 16 L	20m + 30 R

#2c	#3	#4	#5	#6	#8a

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