Name_____ Date_____ Period_____

**LESSON 6-5 · SESSION 1 · PRACTICE · FORM A**

# 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.** 7 more than a number $n$ _____

**b.** 5 times a number $x$ _____

**c.** 4 less than $y$ _____

**d.** $w$ divided by 3 _____

**e.** twice $t$, plus 1 _____

**f.** 6 less than the product of 3 and $k$ _____

**2.** **Movie Club.** A movie club buys one \$6 popcorn for each member. It also pays one \$12 delivery charge. Let $m$ stand for the number of members.

**a.** Write the popcorn 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 $8. There is one $25 service fee for the whole order. Write an expression for the cost of $t$ tickets.

   **Hint** *The $8 repeats; the $25 happens once.*

   *Show your work.*

   **Expression**_____

4. **Car Wash.** A team charges $7 for each car it washes. It pays one $45 fee for supplies. Write an expression for the money left after $c$ cars.

   **Hint** *Money collected minus the fee.*

   *Show your work.*

   **Expression**_____

5. **Gym Membership.** A gym charges $17 each month plus a one-time $40 joining fee. 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. **Daily Rental.** A kayak rental costs $5 for each day. Rani wrote $5 + d$ for the cost of $d$ days. Justify or correct her expression.

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

   *Show your work.*

   **Expression**_____

7. **Two Items.** A stand sells lemonade for $3 a cup and cookies for $2 each. Let $c$ be the cups sold and $k$ be the cookies 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 $40 joining fee plus $25 each month.

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

   **b.** Gym B charges no joining fee but $30 each month. Write its expression. _____

   **c.** Which gym costs less for 6 months? Show how you know. _____

   *Show your work.*

## FIND THE ERROR

*explain the mistake, then fix it*

**9. Bela's Work.** Books cost $11 each and shipping is $6 one time. Bela wrote $11 + 6b$ for $b$ books. Explain her mistake. Then write the correct expression.

## TEST PRACTICE

*choose the best answer*

**10.** "7 more than a number $n$" is written –

**A** $n + 7$ **B** $7n$ **C** $n - 7$ **D** $7 - n$

**11.** In the expression $6p + 9$, the variable is –

**A** 6 **B** $p$ **C** 9 **D** 15

## SELF-CHECK CODE

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

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **40m + 17** **X** | **8t + 25** **Y** | **25m + 40** **L** | **45 – 7c** **Z** | **6m + 12** **S** | **7c – 45** **M** | **5 + d** **Q** | **17m + 40** **B** | **5d** **O** |

| #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 #___