Name_____ Date_____ Period_____

LESSON 9-3 · SESSION 1 · PRACTICE · FORM A

Equations from Tables

Learning target – I can write an equation that matches a table of values. · 6.EE.C.9

REMEMBER

- A **constant rate** means $y \div x$ is the same in every row. Then y = (rate) × x.
- If $y - x$ is the same in every row, $y = x +$ (that number).
- If neither works, see how much y grows each step: x: 1, 2, 3 and y: 5, 7, 9 gives $y = 2x + 3$.

WORKED EXAMPLE

Write an equation for the pairs (1, 6), (2, 12), (5, 30).

Step 1 $6 \div 1 = 6$, $12 \div 2 = 6$, $30 \div 5 = 6$.

Step 2 The rate is 6 every time.

Step 3 Check: $6 \times 5 = 30$.

Answer $y = 6x$

WORDS **equation** *(ecuación)* · **constant** *(constante)* · **rate** *(tasa)*

PRACTICE

show your work · label units

1. Write an equation for each table.

a. x: 1, 2, 3 y: 5, 10, 15 $y =$ _____

b. x: 1, 2, 3 y: 12, 24, 36 $y =$ _____

c. x: 1, 2, 3 y: 4, 5, 6 $y =$ _____

d. x: 2, 4, 6 y: 18, 36, 54 $y =$ _____

2. **Skate Park Passes.** Each pass costs the same. Write an equation for the cost y of x passes. Then find the cost of 7 passes.

Hint *Divide a cost by its number of passes.*

Passes (x)	1	2	3	5
Cost in \$ (y)	8	16	24	40

Equation; cost_____

3. **Tile Pattern.** A floor uses the same number of tiles in every row. A table shows x: 1, 2, 3, 4 rows and y: 5, 10, 15, 20 tiles. How many tiles are in 12 rows?

Hint *Find the amount for 1 first.*

Show your work.

Answer_____ tiles

4. **Gas Mileage.** A car goes the same distance on each gallon. A table shows x: 1, 2, 3 gallons and y: 30, 60, 90 miles. Write the equation. What does x stand for?

Show your work.

Equation_____

5. Ticket Booth. Each ticket costs the same. Write an equation. Then find the cost of 14 tickets.

Hint *Use one row to find the price of one.*

Tickets (*x*)	3	6	9
Cost in $ (*y*)	21	42	63

Equation; cost _____

6. Ravi's Rule. A table shows x: 3, 5, 10 y: 27, 45, 90. Ravi wrote $y = x + 24$. Show that it does not fit every row. Then write the correct equation.

Hint *Test the rule on the second row.*

Show your work.

Equation _____

7. Bead Packs. Every pack has the same number of beads. Write an equation. Tell what x and y stand for.

Hint *Find the beads in one pack.*

Packs (*x*)	4	7	10
Beads (*y*)	100	175	250

Equation _____

8. With a Constant. A table shows x: 1, 2, 3 y: 9, 13, 17. $y \div x$ is not the same in every row. Write an equation. Then find y when $x = 10$.

Show your work.

Equation; y _____

FIND THE ERROR

explain the mistake, then fix it

9. Callum's Work. A table shows x: 2, 4, 6 and y: 14, 28, 42. Callum wrote the equation $x = 7y$. Explain his mistake and write the correct equation.

_____

_____

_____

TEST PRACTICE

choose the best answer

10. For x: 1, 2, 3 and y: 5, 10, 15, the equation is –

A $y = x + 5$ **B** $y = 5x$ **C** $x = 5y$ **D** $y = x + 4$

11. For x: 1, 2, 3 and y: 4, 7, 10, the equation is –

A $y = 4x$ **B** $y = x + 3$ **C** $y = 3x + 1$ **D** $y = 3x$

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

60 A	y = 25x R	y = 9x O	y = 8x F	y = 30x C	x = 8y Q	16 Z	32 X	98 T

#2	#3	#4	#5	#6	#7

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