Name_____ Date_____ Period_____

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

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: 6, 12, 18 $y =$ _____

b. x: 1, 2, 3 y: 11, 22, 33 $y =$ _____

c. x: 1, 2, 3 y: 8, 9, 10 $y =$ _____

d. x: 3, 6, 9 y: 12, 24, 36 $y =$ _____

2. **Climbing Gym Passes.** Each pass costs the same. Write an equation for the cost y of x passes. Then find the cost of 8 passes.

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

Passes (x)	1	2	3	5
Cost in \$ (y)	9	18	27	45

Equation; cost_____

3. **Choir Risers.** Each riser holds the same number of singers. A table shows x: 1, 2, 3, 4 risers and y: 7, 14, 21, 28 singers. How many singers fit on 11 risers?

Hint *Find the amount for 1 first.*

Show your work.

Answer_____ singers

4. **Water Bottles.** Each case holds the same number of bottles. A table shows x: 1, 2, 3 cases and y: 24, 48, 72 bottles. Write the equation. What does x stand for?

Show your work.

Equation_____

5. Notebook Order. Each notebook costs the same. Write an equation. Then find the cost of 21 notebooks.

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

Notebooks (*x*)	6	9	15
Cost in $ (*y*)	24	36	60

Equation; cost _____

6. Mia's Rule. A table shows x: 2, 4, 8 y: 16, 32, 64. Mia wrote $y = x + 14$. 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. Locker Stacks. Every stack has the same number of lockers. Write an equation. Tell what x and y stand for.

Hint *Find the lockers in one stack.*

Stacks (*x*)	3	8	14
Lockers (*y*)	18	48	84

Equation _____

8. With a Constant. A table shows x: 1, 2, 3 y: 7, 10, 13. $y \div x$ 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. Micah's Work. A table shows x: 3, 6, 9 and y: 24, 48, 72. Micah wrote the equation $x = 8y$. Explain his mistake and write the correct equation.

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_____

TEST PRACTICE

choose the best answer

10. For x: 1, 2, 3 and y: 12, 24, 36, the equation is –

A $y = x + 11$ **B** $x = 12y$ **C** $y = 12x$ **D** $y = 13x$

11. For x: 1, 2, 3 and y: 7, 9, 11, the equation is –

A $y = 2x + 5$ **B** $y = 7x$ **C** $y = x + 6$ **D** $y = 2x$

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

x = 9y Q	y = 8x E	y = 6x S	39 X	77 A	17 Z	84 U	y = 24x L	y = 9x V

#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 #___