Name_____ Date_____ Period_____

LESSON 8-3 · SESSION 1 · PRACTICE · FORM B

Multiplication Equations

Learning target – I can solve a multiplication equation by dividing both sides by the same number. · 6.EE.B.7

REMEMBER

- The **coefficient** is the number next to the variable. $5b$ means $5 \times b$.
- Division undoes multiplication. **Divide both sides** by the coefficient.
- **Check** by multiplying: coefficient × your answer = the total.

WORKED EXAMPLE

5 boxes each hold the same number of pencils, 45 in all. Solve $5b = 45$.

Step 1 Divide both sides by 5: $5b \div 5 = 45 \div 5$.

Step 2 Simplify: $b = 9$.

Step 3 Check: $5 \times 9 = 45$.

Answer **Each box holds 9 pencils.**

WORDS **coefficient** *(coeficiente)* · **inverse operation** *(operación inversa)* · **Division Property of Equality** *(propiedad de división de la igualdad)*

PRACTICE

show your work · label units

1. Solve each equation.

a. $13k = 78$ ___

b. $8m = 136$ ___

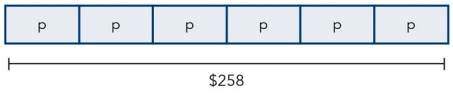
c. $12w = 84$ ___

d. $4y = 14$ ___

e. $16t = 64$ ___

f. $2r = 9$ ___

2. **Soccer Cleats.** A team spent $258 on 6 pairs of cleats. Each pair cost the same, p dollars.



a. Write a multiplication equation. _____

b. Solve it. _____

c. Check by multiplying. _____

3. **Bookshelf Rows.** A bookshelf holds the same number of books on each of its 8 shelves. It holds 168 books in all. Write and solve an equation for b, the books on one shelf.

Hint *Shelves × books on one shelf = all books.*

Show your work.

Answer_____ books

4. Egg Cartons. A farm fills 12 cartons with e eggs each, 264 eggs in all. Solve $12e = 264$.

Hint *Divide both sides by 12.*

Show your work.

e =_____

5. Training Miles. A runner ran m miles each day for 16 days, 208 miles in all. Solve $16m = 208$.

Show your work.

m =_____

6. Car Wash. A car wash charges the same price for every car. Washing 28 cars brought in $420. Write and solve an equation for the price of one wash.

Hint *The number of cars is the coefficient.*

Show your work.

Price_____

7. Field Day Water. A crew fills 16 identical coolers. Together they hold 224 cups of water. Write and solve an equation for the cups in one cooler. Check it.

Hint *Check: 16 × your answer should be 224.*

Show your work.

Answer_____ cups

8. Concert Rows. A hall has r rows with 26 seats in each row. It has 754 seats in all.

a. Write and solve an equation for the number of rows. _____

b. Ten rows are removed for a stage. How many seats are left? _____

c. How can you check part a without dividing again? _____

FIND THE ERROR

explain the mistake, then fix it

9. Omar's Work. To solve $6x = 78$, Omar multiplied both sides by 6. He wrote $x = 468$. Explain his mistake. Then solve correctly.

_____

_____

_____

TEST PRACTICE

choose the best answer

10. Solve $7n = 84$.

A $n = 77$ **B** $n = 12$ **C** $n = 588$ **D** $n = 91$

11. To solve a multiplication equation, you –

A multiply both sides by the coefficient **B** subtract the coefficient

C divide both sides by the coefficient **D** add the coefficient

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

21	13	29	43	14	$392	22	$15	192	1,548
I	I	S	D	E	X	V	D	Z	Q

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

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