Name_____ Date_____ Period_____

LESSON 6-1 · SESSION 2 · PRACTICE · FORM B

Dividing a Fraction by a Whole Number

Learning target – I can divide a fraction by a whole number and explain the result. · 6.NS.A.1

REMEMBER

- Dividing by a whole number **shares** the fraction into equal parts.
- **Multiply by the reciprocal** of the whole number: 2/3 ÷ 4 = 2/3 × 1/4 = 2/12 = 1/6.
- Each share is **less** than the fraction. Check: share × number of shares = the fraction.

WORKED EXAMPLE

A painter pours 2/3 liter of paint evenly into 4 trays. How much paint is in each tray?

Step 1 Write the division: 2/3 ÷ 4.

Step 2 Multiply by the reciprocal: 2/3 × 1/4 = 2/12.

Step 3 Simplify: 2/12 = 1/6. Check: 1/6 × 4 = 4/6 = 2/3.

Answer **1/6 liter in each tray**

WORDS **reciprocal** *(recíproco)* · **multiplicative inverse** *(inverso multiplicativo)* · **divisor** *(divisor)*

PRACTICE

show your work · label units

1. Divide. Write each quotient in simplest form.

a. 1/4 ÷ 2 = _____ **b.** 2/3 ÷ 4 = _____ **c.** 3/4 ÷ 3 = _____

d. 8/9 ÷ 4 = _____ **e.** 5/7 ÷ 5 = _____ **f.** 4/9 ÷ 8 = _____

2. **Kitchen Supplies.** A cooking club splits 5/6 pound of cheese evenly among 5 cooks, as the tape shows.



a. How much cheese does each cook get? _____ lb

b. They pour 3/4 gallon of broth evenly into 8 jars. Amount per jar? _____ gal

3. **Clay Balls.** A sculptor has 2/5 kilogram of clay. He divides it equally into 8 balls. What is the mass of each ball?

Hint *Multiply 2/5 by 1/8, then simplify.*

Show your work.

Answer_____ kg

4. **Glue Bottles.** A jar holds 9/10 liter of glue. It is poured evenly into 3 bottles. How much glue is in each bottle?

Hint *Multiply by 1/3, then simplify.*

Show your work.

Answer_____ L

5. String Pieces. A 2/3-yard string is cut into 4 equal pieces. Malik says each piece is 8/3 yards long. Justify or correct his answer.

Hint *Is one piece longer or shorter than the whole string?*

Show your work.

Answer_____ yard

6. Juice. Ana has 9/10 liter of juice. She pours out 3/10 liter, then shares the rest equally among 3 friends.

Hint *Subtract first, then share the rest.*

a. How much is left? _____ L

b. How much does each friend get? _____ L

Show your work.

7. Lab Day. A chemist has 7/8 liter of solution to split evenly among beakers.

a. How much goes in each beaker if there are 5 beakers? _____ L

b. How much if there are 10 beakers? _____ L

c. How did doubling the number of beakers change each share? _____

8. Fabric Strip. A strip of fabric is 6/7 meter long. It is cut into 3 equal pieces. Find the length of one piece. Then check by multiplying.

Hint *Check: your answer × 3 should equal 6/7.*

Show your work.

Answer_____ m

FIND THE ERROR

explain the mistake, then fix it

9. Jordan's Work. Jordan solved 4/9 ÷ 2. He kept the divisor right side up and wrote 4/9 × 2/1 = 8/9. Explain his mistake. Then find the correct quotient.

_____

_____

_____

TEST PRACTICE

choose the best answer

10. Find 3/5 ÷ 3.

A 9/5 **B** 1/5 **C** 5/9 **D** 3/5

11. Dividing a fraction by a whole number greater than 1 makes the result —

A greater than the fraction

B equal to the fraction

C smaller than the fraction

D always a whole number

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

1/20	1/6	7/40	16/5	8/3	2/7	3/10	1/5	27/10	7/80
P	R	I	X	Q	N	O	T	Z	O

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

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