Name_____ Date_____ Period_____

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

Dividing a Fraction by a Fraction

Learning target – I can divide a fraction by another fraction using the reciprocal. · 6.NS.A.1

REMEMBER

- To divide by a fraction, **multiply by its reciprocal**: a/b ÷ c/d = a/b × d/c.
- Keep the first fraction, change ÷ to ×, flip **only the second** fraction.
- **Check:** quotient × divisor = the amount you started with.

WORKED EXAMPLE

A pitcher has 2/3 liter of juice. Each cup holds 1/6 liter. How many cups can be filled?

Step 1 Write the division: 2/3 ÷ 1/6.

Step 2 Flip the divisor and multiply: 2/3 × 6/1 = 12/3.

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

Answer **4 cups**

WORDS **reciprocal** *(recíproco)* · **dividend** *(dividendo)* · **divisor** *(divisor)* · **quotient** *(cociente)*

PRACTICE

show your work · label units

1. Divide. Write each quotient in simplest form.

a. 5/6 ÷ 1/3 = _____ **b.** 2/3 ÷ 4/9 = _____ **c.** 8/9 ÷ 2/9 = _____

d. 3/5 ÷ 1/10 = _____ **e.** 1/3 ÷ 5/6 = _____ **f.** 5/8 ÷ 3/4 = _____

2. **Soup and Nuts.** A shop has 3/4 gallon of soup and 4/5 pound of nuts. The bar is 1 gallon; the shaded part is the soup.



a. Each bowl holds 1/12 gallon. How many bowls can the shop fill? _____ bowls

b. Each bag holds 2/5 pound. How many bags of nuts? _____ bags

3. **Sanding Strips.** Lia has 11/12 meter of sandpaper. She tears it into strips that are each 1/12 meter wide. How many strips?

Hint *Count the twelfths in 11/12.*

Show your work.

Answer_____ strips

4. **Honey Jars.** A tub holds 7/8 pound of honey. Each gift jar holds 1/16 pound. How many jars can be filled?

Hint *1/8 pound holds two 1/16 pounds.*

Show your work.

Answer_____ jars

5. Wire Pieces. A 5/12-meter wire is cut into pieces that are each 5/12 meter long. Nadia says there are 25/144 pieces. Justify or correct her answer.

Hint *Did Nadia flip the divisor? How many 5/12s fit in 5/12?*

Show your work.

Answer_____ piece

6. Wood Stain. A can holds 15/16 liter of stain. Grant uses 3/16 liter on a chair. He pours the rest into jars that each hold 1/16 liter.

Hint *Subtract first, then divide by 1/16.*

a. How much stain is left? _____ L

b. How many jars does it fill? _____ jars

Show your work.

7. Craft Supplies. A roll holds 9/10 meter of tape. A large project uses 3/10 meter. A small project uses 1/10 meter.

a. How many large projects can one roll supply? _____ projects

b. How many small projects? _____ projects

c. Explain why the second answer is 3 times the first. _____

8. Name Tags. A roll holds 5/6 yard of trim. Each name tag uses 1/18 yard of trim.

Hint *A tiny divisor means many groups fit inside.*

a. How many name tags can the roll cover? _____ tags

b. Explain why the quotient is so large. _____

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. Jamal's Work. Jamal solved 3/5 ÷ 1/2. He flipped both fractions and wrote 5/3 × 2/1 = 10/3. Explain his mistake. Then find the correct quotient.

TEST PRACTICE

choose the best answer

10. Find 3/4 ÷ 1/4.

A 3/16 **B** 3 **C** 1/3 **D** 4/3

11. To divide by a fraction, you multiply by its –

A numerator **B** denominator **C** reciprocal **D** opposite

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

7/128 Z	9 O	25/144 Q	15 R	1 V	3/4 I	12 S	5/108 X	14 I	11 D

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

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