Name_____ Date_____ Period_____

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

Dividing by a Unit Fraction

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

REMEMBER

- A **unit fraction** has 1 on top, like 1/3. Dividing by it asks: **how many pieces of that size fit?**
- **Keep, Change, Flip:** keep the first number, change ÷ to ×, flip the divisor. 4 ÷ 1/3 = 4 × 3.
- The quotient is **greater** than the number you start with. Check: quotient × divisor = start.

WORKED EXAMPLE

A cook has 4 cups of broth. How many 1/3-cup servings can she pour?

Step 1 Write the division: 4 ÷ 1/3.

Step 2 Keep 4, change ÷ to ×, flip 1/3 to 3: 4 × 3 = 12.

Step 3 Check: 12 × 1/3 = 4 cups.

Answer **12 servings**

WORDS **unit fraction** *(fracción unitaria)* · **reciprocal** *(recíproco)* · **quotient** *(cociente)*

PRACTICE

show your work · label units

1. Divide. Think: how many of the unit fraction fit into the whole number?

a. 8 ÷ 1/2 = _____ **b.** 3 ÷ 1/4 = _____ **c.** 10 ÷ 1/3 = _____

d. 3 ÷ 1/5 = _____ **e.** 4 ÷ 1/10 = _____ **f.** 7 ÷ 1/6 = _____

2. **Clay and Wax.** An art teacher has 8 pounds of clay and a 2-pound block of wax. Each bar is 1 pound.



a. Each project uses 1/4 pound of clay. How many projects? _____ projects

b. She cuts the wax into 1/8-pound cubes. Use the bars: how many cubes? _____ cubes

3. **Garden Edging.** A gardener has 12 feet of edging. Each small bed needs 1/3 foot. How many beds can she edge?

Hint *Each foot holds 3 thirds.*

Show your work.

Answer_____ beds

4. **Frozen Yogurt.** A snack cart has 6 quarts of frozen yogurt. Each sample cup holds 1/8 quart. How many cups can it fill?

Hint *Count eighths: 8 in each quart.*

Show your work.

Answer_____ cups

5. Water Bottles. A camp has 8 gallons of water. Each bottle holds 1/2 gallon. Mia says only 4 bottles can be filled. Justify or correct her answer.

Hint *Ask: how many halves are in 8 wholes?*

Show your work.

Answer_____ bottles

6. Tape Pieces. Ivan cuts a 2-yard roll of tape into pieces that are each 1/12 yard long. He gives 8 pieces to a friend.

Hint *Divide first, then subtract the 8 pieces.*

a. How many pieces does he cut? _____ pieces

b. How many are left? _____ pieces

Show your work.

7. Craft Table. A teacher has 15 meters of yarn for bracelets.

a. Each bracelet uses 1/5 meter. How many bracelets? _____ bracelets

b. Each bracelet uses 1/3 meter instead. How many bracelets? _____ bracelets

c. Why does a larger piece for each bracelet give fewer bracelets? _____

Show your work.

8. Explain It. Find 9 ÷ 1/3.

Hint *How many thirds are in 1 whole? In 9 wholes?*

a. Write the multiplication that matches this division and solve. _____

b. Explain why the answer is greater than 9. _____

FIND THE ERROR

explain the mistake, then fix it

9. Rosa's Work. Rosa solved 4 ÷ 1/3. She flipped the first number and wrote 1/4 × 1/3 = 1/12. Explain her mistake. Then find the correct quotient.

_____

_____

_____

TEST PRACTICE

choose the best answer

10. Find 5 ÷ 1/4.

A 5/4 **B** 20 **C** 9 **D** 1/20

11. Dividing 6 by 1/2 gives a quotient that is –

A less than 6 **B** equal to 6 **C** greater than 6 **D** equal to 1/2

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

3 X	16 V	27 E	75 D	4 Q	24 I	3/4 Z	36 D	48 I

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

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