Name_____ Date_____ Period_____

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

# 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.** 7/8 ÷ 1/4 = _____ **b.** 3/4 ÷ 5/8 = _____ **c.** 10/11 ÷ 2/11 = _____

**d.** 4/5 ÷ 1/10 = _____ **e.** 1/4 ÷ 2/3 = _____ **f.** 5/9 ÷ 1/3 = _____

**2.** **Ink and Clay.** An art club has 5/6 liter of ink and 6/7 pound of clay. The bar is 1 liter; the shaded part is the ink.



**a.** Each bottle holds 1/18 liter. How many bottles can the club fill? _____ bottles

**b.** Each clay portion is 2/7 pound. How many portions? _____ portions

**3.** **Sanding Strips.** Theo has 9/10 meter of sandpaper. He tears it into strips that are each 1/10 meter wide. How many strips?

**Hint** *Count the tenths in 9/10.*

*Show your work.*

**Answer**_____ strips

**4.** **Honey Jars.** A tub holds 3/4 pound of honey. Each gift jar holds 1/16 pound. How many jars can be filled?

**Hint** *1/4 pound holds four 1/16 pounds.*

*Show your work.*

**Answer**_____ jars

**5. Wire Pieces.** A 3/8-meter wire is cut into pieces that are each 3/8 meter long. Kofi says there are 9/64 pieces. Justify or correct his answer.

**Hint** *Did Kofi flip the divisor? How many 3/8s fit in 3/8?*

*Show your work.*

**Answer**_____ piece

**6. Wood Stain.** A can holds 11/12 liter of stain. Rosa uses 3/12 liter on a shelf. She pours the rest into jars that each hold 1/24 liter.

**Hint** *Subtract first, then divide by 1/24.*

**a.** How much stain is left? _____ L

**b.** How many jars does it fill? _____ jars

*Show your work.*

**7. Banner Ribbon.** A spool holds 4/5 meter of ribbon. A large banner uses 2/5 meter. A small banner uses 1/10 meter.

**a.** How many large banners can one spool supply? _____ banners

**b.** How many small banners? _____ banners

**c.** Explain why the second answer is 4 times the first. _____

**8. Name Tags.** A roll holds 2/3 yard of trim. Each name tag uses 1/15 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. Priya's Work.** Priya solved 4/7 ÷ 2/3. She flipped both fractions and wrote 7/4 × 3/2 = 21/8. Explain her mistake. Then find the correct quotient.

## TEST PRACTICE

*choose the best answer*

**10.** Find 2/5 ÷ 1/10.

**A** 1/25 **B** 4 **C** 1/4 **D** 20

**11.** The reciprocal of 3/7 is –

**A** –3/7 **B** 3/7 **C** 7/3 **D** 1/7

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

| 2/3 | 8 | 9 | 2/45 | 3/64 | 16 | 12 | 9/64 | 1 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| E | S | I | X | Z | R | N | Q | V | E |

| #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 #___ |
|---|---|---|---|