UNIT 2 · STANDARD 6.NS.1

Fraction Division Problem Solving

Lesson 2-5

Name: Type your name **Date:** Today's date **Class:** Class period

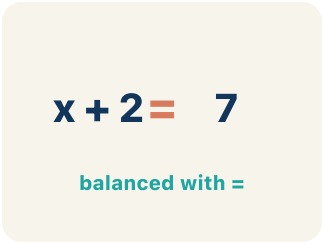
Key Vocabulary Level 2 Standard

Picture first, then the word, then a plain-language meaning. Say each word out loud.

A bar model showing 3/4 split into 1/8-size pieces, or the equation 3/4 ÷ 1/8 = 6

Model

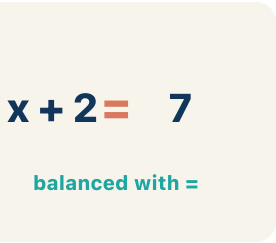
Write the definition:



3/4 ÷ 1/8 = 6 — the left side (division) equals the right side (answer)

Equation

Write the definition:



In 3/4 ÷ 1/8 = 6, the solution is 6 portions

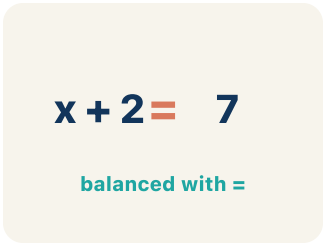
Solution

Write the definition:

3 ÷ 1/4 = 12. Is 12 reasonable? Yes, because 1/4 is small so many pieces fit into 3.

Reasonableness

Write the definition:



If 3/4 ÷ 1/8 = 6, then 6 × 1/8 = 6/8 = 3/4. Multiplication checks division.

Inverse operations

Write the definition:

Guided Notes Level 2 Standard

🎯 **WHAT WE'RE LEARNING TODAY**

I can solve real-world problems by writing and solving fraction division equations.

✏️ **Fill in each blank as we go. Use the Word Bank to help you.**

📚 **WORD BANK — FILL EACH BLANK WITH THE BEST WORD**

Model · Equation · Solution · Reasonableness · Inverse operations

☝️ *Tap any word to see what it means and a picture.*

1. A drawing or diagram that shows a math situation is a _____.

2. A math sentence that says two amounts are equal, with an = sign, is an _____.

3. The value that makes an equation true is the _____.

4. Checking whether an answer makes sense for the problem is checking its _____.

5. Operations that undo each other, like multiplication and division, are _____.

🧱 Watch & Try — Worked Examples

See the notes in action: watch one worked all the way through, then try the next with the same steps.

👀 I do — watch

Follow each step as your teacher solves it.

Problem: A ribbon is 4/5 of a yard long. Each bow uses 1/10 of a yard. Which equation finds how many bows can be made?

A. 4/5 ÷ 1/10

B. 1/10 ÷ 4/5

C. 4/5 × 1/10

D. 4/5 + 1/10

Step 1 The total (4/5 yard) is divided into groups of 1/10 yard each.

Step 2 The equation is 4/5 ÷ 1/10 = 4/5 × 10/1 = 40/5 = 8 bows.

✅ **Answer:** A. 4/5 ÷ 1/10

🧩 Try — put the steps in order

Drag the cards (or use the ▲▼ buttons) to put the solution steps in the right order, then press **Check**.

The equation is 4/5 ÷ 1/10 = 4/5 × 10/1 = 40/5 = 8 bows.

The total (4/5 yard) is divided into groups of 1/10 yard each.

🤝 We do — together

Solve this one with your class using the same steps.

Problem: A detective has 1/2 gallon of solution. Each test uses 1/8 gallon. How many tests can be run?

A. 4

B. 1/16

C. 16

D. 1/4

Step 1 _____

Step 2 _____

Answer: _____

✏️ **You do — your turn**

Now try one on your own. Show every step.

Problem: A trail is 3/4 mile long. A jogger runs laps of 1/4 mile each. How many laps does the jogger complete?

A. 3 laps

B. 1/3 lap

C. 4 laps

D. 3/16 lap

Show your work:

Try It

Solve on your own. Check the answer key when you are done.

1. Room 2 — Surveillance Map: A suspect's trail is 5/6 of a mile. Hidden checkpoints are spaced every 1/6 of a mile. How many checkpoints are on the trail?

A. 5

B. 6

C. 1/5

D. 4

Show your work:

2. Room 5 — Final Keypad: The vault key code equals the number of 3/10-liter vials Torres can fill from a 9/10-liter bottle of fingerprint solution. What is the code?

A. 3

B. 9

C. 1/3

D. 6

Show your work:

Stretch Your Thinking

Level 2 enrichment

Challenge task — explain your reasoning in full sentences.

Write your own fraction division word problem where the answer is 8. Then show the equation, solve it step by step, and explain how you know your answer is reasonable.

Sentence starter: My word problem: ____. The equation is ____ ÷ ____ = ____. I solved it using KCF: ____ × ____ = ____. The answer 8 is reasonable because ____.

Show your work:

Reflect — Exit Ticket

A pipe is 3/4 meter long. Each connector piece is 3/8 meter. How many connectors fit on the pipe?

A. 2

B. 9/32

C. 3/2

D. 6

Your answer: