LESSON MAKER PRO

Fraction Group Quest

Find how many groups fit.

GRADE 6 · 6.NS.1

6.NS.1 "Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions by using visual fraction models and equations to represent the problem."

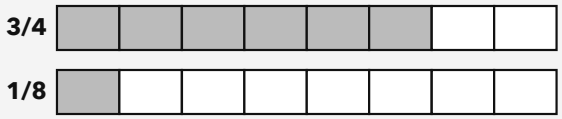
NAME _____ DATE _____

COUNT EQUAL GROUPS

A fraction quotient tells how many groups of one size fit in another amount. Rename both fractions with the same denominator, then divide their numerators.

WORKED EXAMPLE

How many 1/8 groups fit in 3/4?



1. Rename 3/4 as 6/8.
2. Divide: 6/8 ÷ 1/8 = 6 ÷ 1.

Answer: 6 groups

PRACTICE 4 problems

1 Compute 2/3 ÷ 1/6.

ANSWER _____

2 Compute 5/8 ÷ 1/4.

ANSWER _____

3 Compute 7/10 ÷ 2/5.

ANSWER _____

4 Compute 4/9 ÷ 2/3.

ANSWER _____

APPLY IT Show your work

1 You have 5/6 liter of sports drink. Each sample cup holds 1/12 liter. Use the bars to write an equation and find how many cups you can fill.

5/6 liter

1/12 liter per cup

ANSWER _____

2 An art club has 9/10 liter of paint. Each mural panel needs 3/10 liter. Use the bars to write an equation and find how many panels they can paint.

9/10 liter

3/10 liter per panel

ANSWER _____

CHALLENGE One step up

Maya says 2/5 ÷ 4/5 = 2 because 4 ÷ 2 = 2. Is she correct? Write the correct equation and explain in one sentence.

WORK SPACE AND ANSWER

ANSWER KEY

Fraction Group Quest

GRADE 6 · 6.NS.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Compute 2/3 ÷ 1/6.	**4**
2	Compute 5/8 ÷ 1/4.	**5/2**
3	Compute 7/10 ÷ 2/5.	**7/4**
4	Compute 4/9 ÷ 2/3.	**2/3**

PART 2 · APPLY IT

1. **5/6 ÷ 1/12 = 10 cups** The bars show 10 twelfths in 5/6 liter. Each cup takes one twelfth, so 10 cups can be filled.
2. **9/10 ÷ 3/10 = 3 panels** The 9 shaded tenths make three groups of 3 tenths.

CHALLENGE

2/5 ÷ 4/5 = 1/2. Maya divided in the wrong order because 2/5 is half of 4/5.

Accept equivalent fractions or mixed numbers for the practice answers. In the word problems, equations must show the total amount divided by the amount per group.