LESSON MAKER PRO

Fraction Division Quest

Use models, equations, and real situations to divide fractions.

GRADE 6 · 6.NS.A.1

CCSS.Math.Content.6.NS.A.1 "Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example..."

NAME _____ DATE _____

DIVIDE BY A FRACTION

To divide by a fraction, multiply by its reciprocal, which means switch the numerator and denominator of the divisor. First change any mixed number to an improper fraction, then multiply and simplify your answer.

WORKED EXAMPLE

Use the fraction bars. Find the shaded amount in bar A divided by the shaded amount in bar B.



1. The shaded amounts are 11/12 and 3/7.
2. Write 11/12 ÷ 3/7 = 11/12 × 7/3.
3. Multiply and simplify: 77/36 = 2 5/36.

Answer: 2 5/36

PRACTICE 6 problems

1 Use the fraction bars. Find the shaded amount in bar A divided by the shaded amount in bar B.



ANSWER _____

2 Use the fraction bars. Find the shaded amount in bar A divided by the shaded amount in bar B. Write your answer as a mixed number.



ANSWER _____

3 Find 4/9 ÷ 2/7. Write your answer as a mixed number.

ANSWER _____

4 Find 5/12 ÷ 10/9.

ANSWER _____

5 Find 1 1/2 ÷ 3/5. Write your answer as a mixed number.

ANSWER _____

6 Find 7/10 ÷ 1 3/4.

ANSWER _____

APPLY IT Show your work

1 The art club has 2 1/4 liters of paint for a mural. Each small paint container holds 3/8 liter. How many containers can the club fill?

WORK SPACE

ANSWER _____

2 A rectangular display board for a school event has an area of 5/6 square meter and a length of 1 1/3 meters. How wide is the board?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A player says that 9/10 ÷ 3/8 = 27/80 because the fractions should be multiplied straight across. Is the player correct? Find the quotient and use a multiplication equation to explain your reasoning.

WORK SPACE AND ANSWER

ANSWER KEY

Fraction Division Quest

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use the fraction bars. Find the shaded amount in bar A divided by the shaded amount in bar B.	**9/10**
2	Use the fraction bars. Find the shaded amount in bar A divided by the shaded amount in bar B. Write your answer as a mixed number.	**1 3/4**
3	Find 4/9 ÷ 2/7. Write your answer as a mixed number.	**1 5/9**
4	Find 5/12 ÷ 10/9.	**3/8**
5	Find 1 1/2 ÷ 3/5. Write your answer as a mixed number.	**2 1/2**
6	Find 7/10 ÷ 1 3/4.	**2/5**

PART 2 · APPLY IT

1. **6 containers** Change 2 1/4 to 9/4, then compute 9/4 ÷ 3/8 = 9/4 × 8/3 = 6.
2. **5/8 meter** Width equals area divided by length. Compute 5/6 ÷ 4/3 = 5/6 × 3/4 = 5/8.

CHALLENGE

No. 9/10 ÷ 3/8 = 12/5 because 3/8 × 12/5 = 9/10.

Accept equivalent simplified fractions and mixed numbers or improper fractions when they represent the same value. For the challenge, accept any correct multiplication check showing that 3/8 times the quotient equals 9/10.