LESSON MAKER PRO

How Many Fit?

Divide fractions to find how many equal groups fit.

GRADE 6 · 6.NS.A.4.a

6.NS.A.4.a "Use quotients of fractions to analyze and solve problems."

NAME _____ DATE _____

DIVIDE BY A FRACTION

To divide by a fraction, multiply by its reciprocal. A reciprocal has its numerator and denominator switched. Simplify the product to find the quotient.

WORKED EXAMPLE

Find 7/10 ÷ 2/5.

1. Switch 2/5 to its reciprocal, 5/2.
2. Multiply: 7/10 × 5/2 = 35/20.
3. Simplify: 35/20 = 7/4.

Answer: 7/4, or 1 3/4

PRACTICE 6 problems

1 Find 3/4 ÷ 1/2.

ANSWER _____

2 Find 2/3 ÷ 4/5.

ANSWER _____

3 Find 5/6 ÷ 2.

ANSWER _____

4 Find 3 ÷ 3/8.

ANSWER _____

5 Find 1 1/2 ÷ 3/4.

ANSWER _____

6 Find 4/9 ÷ 2/3.

ANSWER _____

APPLY IT Show your work

1 You have 2 1/2 hours to play a game. Each match takes 1/4 hour. How many matches can you finish?

WORK SPACE

ANSWER _____

2 An art club has 3 3/4 yards of cord. Each bracelet needs 5/8 yard. How many bracelets can the club make?

WORK SPACE

ANSWER _____

CHALLENGE One step up

You have 4 1/2 cups of paint. You set aside 3/4 cup for touch-ups. Each poster uses 3/8 cup. How many posters can you paint with the paint that remains? Show the steps you use.

WORK SPACE AND ANSWER

ANSWER KEY

How Many Fit?

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 3/4 ÷ 1/2.	**3/2, or 1 1/2**
2	Find 2/3 ÷ 4/5.	**5/6**
3	Find 5/6 ÷ 2.	**5/12**
4	Find 3 ÷ 3/8.	**8**
5	Find 1 1/2 ÷ 3/4.	**2**
6	Find 4/9 ÷ 2/3.	**2/3**

PART 2 · APPLY IT

1. **10 matches** Divide the total time by the time per match: 2 1/2 ÷ 1/4 = 10.
2. **6 bracelets** Divide the total cord by the cord per bracelet: 3 3/4 ÷ 5/8 = 15/4 × 8/5 = 6.

CHALLENGE

10 posters. 4 1/2 − 3/4 = 3 3/4 cups; 3 3/4 ÷ 3/8 = 15/4 × 8/3 = 10.

Accept equivalent simplified fractions or mixed numbers for the practice answers. In the challenge, look for subtraction before division.