LESSON MAKER PRO

Fraction Sharing Lab

Share small amounts and count equal pieces.

GRADE 5 · 5.NOS.D.16

5.NOS.D.16 "Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions in context. Apply estimation strategies to estimate quotients and assess reasonableness of answers..."

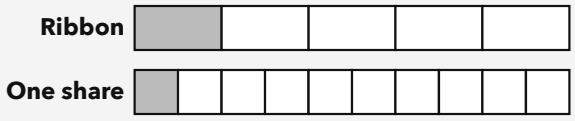
NAME _____ DATE _____

TWO WAYS TO DIVIDE

To share a unit fraction equally, multiply its denominator by the number of shares. To find how many unit fractions fit in a whole number, multiply the whole number by the fraction's denominator.

WORKED EXAMPLE

Share 1/5 yard of ribbon equally between 2 cards. How much ribbon does each card get?



1. Split the shaded fifth into 2 equal pieces.
2. Each piece is 1 of 10 equal parts: 1/5 ÷ 2 = 1/10.

Answer: 1/10 yard per card

PRACTICE 4 problems

1 Find 1/3 ÷ 4.

ANSWER _____

2 Find 6 ÷ 1/7.

ANSWER _____

3 Find 1/8 ÷ 3.

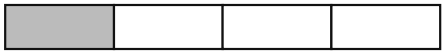
ANSWER _____

4 Before you calculate 4 ÷ 1/6, will the answer be greater than or less than 4? Then find the answer.

ANSWER _____

APPLY IT Show your work

1 You have 1/4 meter of ribbon for 3 game badges. Share the shaded ribbon equally. How much goes on each badge?

1/4 meter 

ANSWER _____

2 You have 3 liters of juice. Each cup holds 1/4 liter. Split each liter in the model into fourths. How many cups can you fill?

Juice | 1 liter | 1 liter | 1 liter | **3 liters**

ANSWER _____

CHALLENGE One step up

A classmate says 1/9 ÷ 3 = 1/3. Is that reasonable? Give the correct answer and explain using the size of the fractions.

WORK SPACE AND ANSWER

ANSWER KEY

Fraction Sharing Lab

GRADE 5 · 5.NOS.D.16

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 1/3 ÷ 4.	**1/12**
2	Find 6 ÷ 1/7.	**42**
3	Find 1/8 ÷ 3.	**1/24**
4	Before you calculate 4 ÷ 1/6, will the answer be greater than or less than 4? Then find the answer.	**Greater than 4; 24**

PART 2 · APPLY IT

1. **1/12 meter per badge** Split the shaded fourth into 3 equal pieces. Each piece is 1/12 meter, so 1/4 ÷ 3 = 1/12.
2. **12 cups** Each liter fills 4 cups. There are 3 × 4 = 12 quarter-liter cups.

CHALLENGE

No. Sharing 1/9 among 3 makes each share smaller than 1/9, but 1/3 is larger. The correct answer is 1/27.

Accept equivalent explanations that connect sharing a unit fraction to smaller equal parts or dividing a whole number to counting unit-fraction pieces.