LESSON MAKER PRO

Fraction Sharing Lab

Use models to divide fractions and whole numbers.

GRADE 5 · 5.NF.7c

5.NF.7c "Extend the concept of division to divide unit fractions and whole numbers by using visual fraction models and equations. Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers..."

NAME _____ DATE _____

COUNT OR SHARE

To divide a unit fraction by a whole number, split the fraction into equal parts. To divide a whole number by a unit fraction, count how many of those fraction-sized parts fit in the wholes. A model can show the parts, and an equation can show the division.

WORKED EXAMPLE

Use the model to find 1/8 ÷ 5.

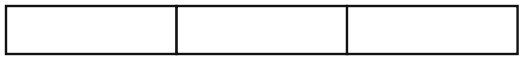
1/8 split equally  **1/8**

1. Split 1/8 into 5 equal parts.
2. Each part is 1/(8 × 5) = 1/40.
3. So 1/8 ÷ 5 = 1/40.

Answer: 1/40

PRACTICE 6 problems

1 Use the model to find 1/2 ÷ 3.

 **1/2**

ANSWER _____

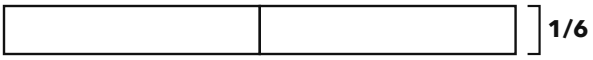
2 Use the model to find 2 ÷ 1/3.

1 whole 

1 whole 

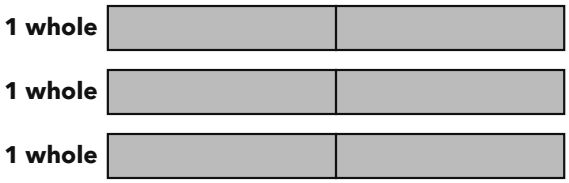
ANSWER _____

3 Use the model to find 1/6 ÷ 2.



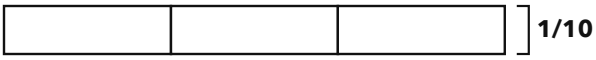
ANSWER _____

4 Use the model to find 3 ÷ 1/2.



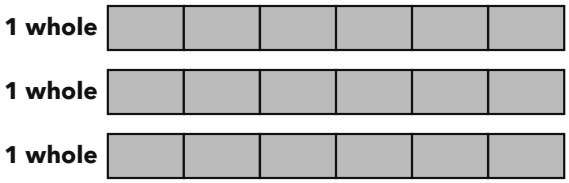
ANSWER _____

5 Use the model to find 1/10 ÷ 3.



ANSWER _____

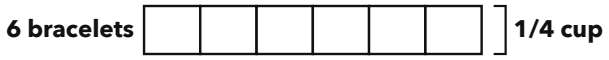
6 Use the model to find 3 ÷ 1/6.



ANSWER _____

APPLY IT Show your work

1 You have 1/4 cup of beads to share equally among 6 friendship bracelets. Use the model. Write a division equation and find how many cups of beads go on each bracelet.



ANSWER _____

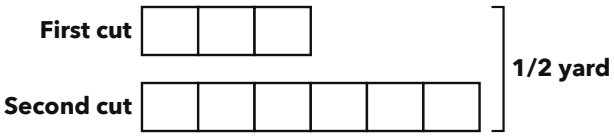
2 You have 2 yards of ribbon. Each friendship bracelet uses 1/6 yard. Use the model. Write a division equation and find how many bracelets you can make.



ANSWER _____

CHALLENGE One step up

A 1/2-yard ribbon is cut into 3 equal pieces. Then each piece is cut in half. Use the model to find the length of one final piece. Write two division equations to show your steps.



WORK SPACE AND ANSWER

ANSWER KEY

Fraction Sharing Lab

GRADE 5 · 5.NF.7c

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use the model to find 1/2 ÷ 3.	**1/6**
2	Use the model to find 2 ÷ 1/3.	**6**
3	Use the model to find 1/6 ÷ 2.	**1/12**
4	Use the model to find 3 ÷ 1/2.	**6**
5	Use the model to find 1/10 ÷ 3.	**1/30**
6	Use the model to find 3 ÷ 1/6.	**18**

PART 2 · APPLY IT

1. **1/4 ÷ 6 = 1/24; 1/24 cup per bracelet** Split the 1/4 cup into 6 equal parts. Each part is 1/(4 × 6), or 1/24 cup.
2. **2 ÷ 1/6 = 12; 12 bracelets** Each yard contains six 1/6-yard pieces. Two yards contain 12 pieces, enough for 12 bracelets.

CHALLENGE

1/2 ÷ 3 = 1/6; 1/6 ÷ 2 = 1/12. Each final piece is 1/12 yard long.

For the word problems and challenge, accept equivalent equations that show the same divisions. Answers to the practice problems are in simplest form.