LESSON MAKER PRO

Tiny Fraction Shares

Divide one unit fraction into equal parts.

GRADE 5 · 5.NF.B.7a

CCSS.Math.Content.5.NF.B.7a "Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for (1/3) ÷ 4, and use a visual fraction model to show the quotient..."

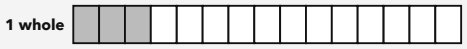
NAME _____ DATE _____

SPLIT A UNIT FRACTION

Dividing a unit fraction by a whole number means sharing that fraction into equal groups. The denominator of the answer is the original denominator multiplied by the number of groups. Check by multiplying the quotient by the number of groups to get the starting unit fraction.

WORKED EXAMPLE

The shaded part of the fraction bar is shared equally among 3 people. What fraction of the whole does each person get?



1. 3 of the 15 equal parts are shaded, so the shaded amount is 1/5.
2. Share the 3 shaded small parts among 3 people, so each person gets 1 part.
3. Each small part is 1/15 of the whole.
4. Check: 1/15 × 3 = 3/15 = 1/5.

Answer: 1/15

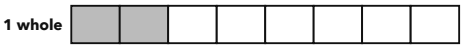
PRACTICE 6 problems

1 The shaded part of the fraction bar is shared equally among 4 teams. What fraction of the whole does each team get?



ANSWER _____

2 The shaded part of the fraction bar is shared equally between 2 bins. What fraction of the whole goes in each bin?



ANSWER _____

3 Compute 1/7 ÷ 6.

ANSWER _____

4 Compute 1/9 ÷ 4.

ANSWER _____

5 Find 1/11 ÷ 8. Then write a multiplication check.

ANSWER _____

6 A quotient multiplied by 6 equals 1/8. What is the quotient?

ANSWER _____

APPLY IT Show your work

1 Jada has 1/6 yard of glow tape. She cuts it into 7 equal pieces for bike decorations. How many yards of tape are in each piece?

WORK SPACE

ANSWER _____

2 The science club has 1/8 liter of plant food. They pour it equally into 4 mini terrariums. How many liters of plant food go into each terrarium?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Which quotient is greater, 1/4 ÷ 6 or 1/6 ÷ 4? Find both quotients and explain your reasoning with multiplication.

WORK SPACE AND ANSWER

ANSWER KEY

Tiny Fraction Shares

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	The shaded part of the fraction bar is shared equally among 4 teams. What fraction of the whole does each team get?	**1/8**
2	The shaded part of the fraction bar is shared equally between 2 bins. What fraction of the whole goes in each bin?	**1/8**
3	Compute 1/7 ÷ 6.	**1/42**
4	Compute 1/9 ÷ 4.	**1/36**
5	Find 1/11 ÷ 8. Then write a multiplication check.	**1/88; 1/88 × 8 = 1/11**
6	A quotient multiplied by 6 equals 1/8. What is the quotient?	**1/48**

PART 2 · APPLY IT

1. **1/42 yard** Compute 1/6 ÷ 7 by multiplying the denominator by 7. Each piece is 1/(6 × 7) yard.
2. **1/32 liter** Compute 1/8 ÷ 4 by multiplying the denominator by 4. Each terrarium gets 1/(8 × 4) liter.

CHALLENGE

They are equal. 1/4 ÷ 6 = 1/24 and 1/6 ÷ 4 = 1/24. Checks: 1/24 × 6 = 1/4 and 1/24 × 4 = 1/6.

Accept equivalent fractions when they represent the same value. For multiplication checks, accept an equivalent product such as 8/88 = 1/11.