LESSON MAKER PRO

Fraction Tile Areas

Multiply fractions and check with area.

GRADE 5 · 5.NOS.D.12

5.NOS.D.12 "Apply and extend previous understandings of multiplication to multiply a fraction by a fraction. Estimate products by reasoning about benchmark numbers and assess reasonableness of answers (e.g...."

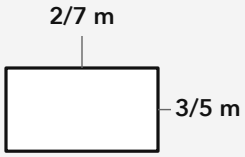
NAME _____ DATE _____

THE BIG IDEA

To multiply fractions, multiply the numerators, then multiply the denominators. You can also find a rectangle's area by counting small tiles and finding the area of each tile.

WORKED EXAMPLE

What is the area of the rectangle?



1. Use tiles that are 1/7 m by 1/5 m.
2. 2 columns and 3 rows make 6 tiles.
3. Each tile has an area of 1/35 square meter.
4. Area = 6 × 1/35 = 6/35 square meter.

Answer: 6/35 square meter

PRACTICE 4 problems

1 Find 1/2 × 3/4.

ANSWER _____

2 Find 2/3 × 4/5.

ANSWER _____

3 Find 3/8 × 5/6. Write the answer in simplest form.

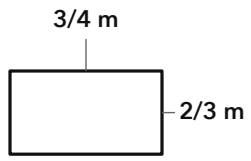
ANSWER _____

4 Find 9/10 × 1/3. Write the answer in simplest form.

ANSWER _____

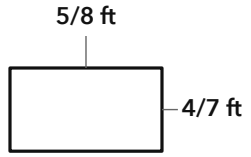
APPLY IT Show your work

1 A robot's practice mat is the rectangle shown. What is its area?



ANSWER _____

2 A craft club cuts the rectangular sticker sheet shown. What is its area?



ANSWER _____

CHALLENGE One step up

Find 3/4 × 7/8. Explain why the answer is greater than 3/8 but less than 3/4.

WORK SPACE AND ANSWER

ANSWER KEY

Fraction Tile Areas

GRADE 5 · 5.NOS.D.12

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 1/2 × 3/4.	**3/8**
2	Find 2/3 × 4/5.	**8/15**
3	Find 3/8 × 5/6. Write the answer in simplest form.	**5/16**
4	Find 9/10 × 1/3. Write the answer in simplest form.	**3/10**

PART 2 · APPLY IT

1. **1/2 square meter** Multiply 3/4 × 2/3 = 6/12 = 1/2.
2. **5/14 square foot** Multiply 5/8 × 4/7 = 20/56 = 5/14.

CHALLENGE

21/32. Since 1/2 < 7/8 < 1, multiplying 3/4 by 7/8 gives a result between 3/8 and 3/4.

Accept equivalent fractions for answers that do not request simplest form. Area answers must include square units.