LESSON MAKER PRO

Fraction Division Quest

Divide unit fractions and whole numbers with confidence.

GRADE 5 · MA.5.FR.2.4

MA.5.FR.2.4 "Extend previous understanding of division to explore the division of a unit fraction by a whole number and a whole number by a unit fraction."

NAME _____ DATE _____

THE BIG IDEA

When you divide a unit fraction by a whole number, multiply the denominator by that whole number. When you divide a whole number by a unit fraction, multiply the whole number by the denominator.

WORKED EXAMPLE

Find 1/11 ÷ 4.

1. Start with 1/11 ÷ 4.
2. Multiply the denominator by 4.
3. 11 × 4 = 44.
4. So, 1/11 ÷ 4 = 1/44.

Answer: 1/44

PRACTICE 6 problems

1 Find 1/3 ÷ 2.

ANSWER _____

2 Find 1/6 ÷ 5.

ANSWER _____

3 Find 9 ÷ 1/3.

ANSWER _____

4 Find 5 ÷ 1/2.

ANSWER _____

5 Find 1/10 ÷ 3.

ANSWER _____

6 Find 12 ÷ 1/6.

ANSWER _____

APPLY IT Show your work

1 Maya has 1/8 yard of glow-in-the-dark tape. She cuts the tape into 2 equal pieces. How long is each piece?

WORK SPACE

ANSWER _____

2 A game designer has 8 meters of LED strip. Each game badge uses 1/2 meter of LED strip. How many badges can the designer make?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Which quotient is greater, 1/6 ÷ 5 or 5 ÷ 1/6? Explain your reasoning.

WORK SPACE AND ANSWER

ANSWER KEY

Fraction Division Quest

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 1/3 ÷ 2.	**1/6**
2	Find 1/6 ÷ 5.	**1/30**
3	Find 9 ÷ 1/3.	**27**
4	Find 5 ÷ 1/2.	**10**
5	Find 1/10 ÷ 3.	**1/30**
6	Find 12 ÷ 1/6.	**72**

PART 2 · APPLY IT

1. **1/16 yard** Divide 1/8 by 2. Multiply the denominator 8 by 2, so each piece is 1/16 yard.
2. **16 badges** Find 8 ÷ 1/2. There are 16 halves in 8 wholes, so the designer can make 16 badges.

CHALLENGE

5 ÷ 1/6 is greater. 1/6 ÷ 5 = 1/30, and 5 ÷ 1/6 = 30.

Accept equivalent fraction forms when appropriate. For the challenge, accept an explanation that correctly compares 1/30 and 30.