LESSON MAKER PRO

Fraction Multiply Mission

Multiply fractions and whole numbers with meaning.

GRADE 5 · 5.NF.B.4

CCSS.Math.Content.5.NF.B.4 "Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction."

NAME _____ DATE _____

THE BIG IDEA

To multiply fractions, multiply the numerators and multiply the denominators. To multiply a whole number by a fraction, write the whole number as a fraction with 1 as the denominator, then simplify the product.

WORKED EXAMPLE

7/8 x 3/10

1. Multiply the numerators: 7 x 3 = 21.
2. Multiply the denominators: 8 x 10 = 80.
3. Write the product: 21/80.
4. 21/80 is already in simplest form.

Answer: 21/80

PRACTICE 6 problems

1 1/2 x 5/6

ANSWER _____

2 4 x 1/5

ANSWER _____

3 2/9 x 9/11

ANSWER _____

4 5/12 x 6/11

ANSWER _____

5 6 x 2/11

ANSWER _____

6 1/9 x 4/5

ANSWER _____

APPLY IT Show your work

1 At a coding club, 4/5 of the students sign up for a game-design session. Of those students, 1/6 choose the music team. What fraction of all the club students choose the music team?

WORK SPACE

ANSWER _____

2 A streamer plans to spend 2/5 of an hour editing a video each day for 6 days. How many hours will the streamer spend editing?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Without finding the exact product, decide whether 11/12 x 5/6 is greater or less than 5/6. Explain why.

WORK SPACE AND ANSWER

ANSWER KEY

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	1/2 x 5/6	**5/12**
2	4 x 1/5	**4/5**
3	2/9 x 9/11	**2/11**
4	5/12 x 6/11	**5/22**
5	6 x 2/11	**1 1/11**
6	1/9 x 4/5	**4/45**

PART 2 · APPLY IT

1. **2/15** Multiply 4/5 by 1/6. Simplify the product to 2/15.
2. **2 2/5 hours** Multiply 2/5 by 6 to get 12/5 hours. Rename 12/5 as 2 2/5 hours.

CHALLENGE

Less than 5/6, because 11/12 is greater than 0 but less than 1, so multiplying by it makes 5/6 smaller.

Accept equivalent fraction forms when they represent the same value. For the challenge, accept reasoning that recognizes multiplication by a positive fraction less than 1 makes a positive quantity smaller.