

Fraction Mission

Multiply fractions and mixed numbers in real situations.

GRADE 5 • 5.NF.B.6

CCSS.Math.Content.5.NF.B.6 "Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem."

NAME _____

DATE _____

MULTIPLY AND SIMPLIFY

To multiply fractions, multiply the numerators and multiply the denominators. Change each mixed number to an improper fraction before multiplying. You can cancel a common factor in a numerator and denominator, then write the product in simplest form.

WORKED EXAMPLE

Find $11/12 \times 18/21$.

1. Cancel 18 and 12 by 6: $11/2 \times 3/21$.
2. Cancel 3 and 21 by 3: $11/2 \times 1/7$.
3. Multiply: $11/14$.

Answer: 11/14

PRACTICE 6 problems

1 Find $3/4 \times 2/5$.

ANSWER _____

2 Find $7/9 \times 3/7$.

ANSWER _____

3 Find $1 \frac{1}{2} \times 4/7$.

ANSWER _____

4 Find $2 \frac{1}{3} \times 3/8$.

ANSWER _____

5 Find $3/5 \times 1 \frac{1}{4}$.

ANSWER _____

6 Find $1 \frac{3}{4} \times 2/3$.

ANSWER _____

APPLY IT Show your work

- 1** During a $2\frac{1}{2}$ -hour robotics club meeting, the team spends $\frac{3}{5}$ of the time coding. How many hours does the team spend coding?

WORK SPACE

ANSWER _____

- 2** Maya has $\frac{3}{4}$ yard of fabric for a costume. She uses $\frac{2}{3}$ of the fabric. How many yards of fabric does she use?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A rectangular poster for a gaming tournament is $2\frac{1}{4}$ feet wide and $1\frac{1}{3}$ feet tall. What is the area of the poster?

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Find $\frac{3}{4} \times \frac{2}{5}$.	$\frac{3}{10}$
2	Find $\frac{7}{9} \times \frac{3}{7}$.	$\frac{1}{3}$
3	Find $1\frac{1}{2} \times \frac{4}{7}$.	$\frac{6}{7}$
4	Find $2\frac{1}{3} \times \frac{3}{8}$.	$\frac{7}{8}$
5	Find $\frac{3}{5} \times 1\frac{1}{4}$.	$\frac{3}{4}$
6	Find $1\frac{3}{4} \times \frac{2}{3}$.	$1\frac{1}{6}$

PART 2 • APPLY IT

- $1\frac{1}{2}$ hours** Change $2\frac{1}{2}$ to $\frac{5}{2}$, then multiply $\frac{5}{2} \times \frac{3}{5}$. The product is $\frac{3}{2}$, or $1\frac{1}{2}$ hours.
- $\frac{1}{2}$ yard** Multiply the part she has by the part she uses: $\frac{3}{4} \times \frac{2}{3}$. Cancel the 3s to get $\frac{2}{4}$, which simplifies to $\frac{1}{2}$ yard.

CHALLENGE

3 square feet

Accept equivalent fraction forms, although simplified fractions and mixed numbers are preferred. Require square feet as the unit for the challenge area.