

Fraction Product Power

Multiply fractions, mixed numbers, and values greater than 1.

GRADE 5 • MA.5.FR.2.2

MA.5.FR.2.2 "Extend previous understanding of multiplication to multiply a fraction by a fraction, including mixed numbers and fractions greater than 1, with procedural reliability."

NAME _____

DATE _____

MULTIPLY AND SIMPLIFY

Change each mixed number to an improper fraction before you multiply. Multiply the numerators, multiply the denominators, then simplify the product. If your answer is greater than 1, you may write it as a mixed number.

WORKED EXAMPLE

Find $2\frac{3}{4} \times \frac{5}{6}$.

1. Change $2\frac{3}{4}$ to $\frac{11}{4}$.
2. Multiply: $\frac{11}{4} \times \frac{5}{6} = \frac{55}{24}$.
3. Rename $\frac{55}{24}$ as $2\frac{7}{24}$.

Answer: $2\frac{7}{24}$

PRACTICE 6 problems

1 Find $\frac{7}{9} \times \frac{8}{11}$.

ANSWER _____

2 Find $\frac{11}{12} \times \frac{9}{10}$.

ANSWER _____

3 Find $1\frac{8}{11} \times \frac{11}{12}$.

ANSWER _____

4 Find $\frac{13}{14} \times \frac{7}{15}$.

ANSWER _____

5 Find $1\frac{5}{8} \times \frac{4}{13}$.

ANSWER _____

6 Find $\frac{9}{8} \times \frac{16}{27}$.

ANSWER _____

APPLY IT Show your work

- 1** Maya has $\frac{7}{8}$ pound of clay for making mini figures. She uses $\frac{11}{12}$ of the clay. How many pounds of clay does she use?

WORK SPACE

ANSWER _____

- 2** A bike club rides $\frac{8}{9}$ of a trail that is $1\frac{7}{8}$ miles long. How far does the club ride?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Find $1\frac{8}{11} \times \frac{11}{12} \times \frac{9}{10}$. Show how you simplify before or after multiplying.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Find $7/9 \times 8/11$.	56/99
2	Find $11/12 \times 9/10$.	33/40
3	Find $1 \frac{8}{11} \times 11/12$.	1 $\frac{7}{12}$
4	Find $13/14 \times 7/15$.	13/30
5	Find $1 \frac{5}{8} \times 4/13$.	1 $\frac{1}{2}$
6	Find $9/8 \times 16/27$.	2/3

PART 2 • APPLY IT

1. **77/96 pound** Multiply $7/8$ by $11/12$. The product is $77/96$, which cannot be simplified.
2. **1 $\frac{2}{3}$ miles** Change $1 \frac{7}{8}$ to $15/8$, then multiply $15/8$ by $8/9$. The product $15/9$ simplifies to $5/3$, or $1 \frac{2}{3}$.

CHALLENGE

1 $\frac{17}{40}$

Accept equivalent fractions and mixed-number forms. Students should convert mixed numbers correctly and give products in simplest form.