

# Fraction Product Power

*Multiply fractions and mixed numbers in real situations.*

**GRADE 5 • NY-5.NF.6**

**NY-5.NF.6** "Solve real world problems involving multiplication of fractions and mixed numbers."

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 to lowest terms.

## WORKED EXAMPLE

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

1. Change  $1 \frac{2}{3}$  to  $\frac{5}{3}$ .
2. Multiply:  $\frac{5}{3} \times \frac{3}{7} = \frac{15}{21}$ .
3. Simplify:  $\frac{15}{21} = \frac{5}{7}$ .

**Answer:  $\frac{5}{7}$**

## PRACTICE 6 problems

- 1** Find  $\frac{4}{5} \times \frac{5}{8}$ . Write the product in simplest form.

**ANSWER** \_\_\_\_\_

- 2** Find  $\frac{9}{10} \times \frac{4}{9}$ . Write the product in simplest form.

**ANSWER** \_\_\_\_\_

- 3** Find  $1 \frac{1}{4} \times \frac{4}{5}$ . Write the product in simplest form.

**ANSWER** \_\_\_\_\_

- 4** Find  $1 \frac{1}{5} \times \frac{5}{6}$ . Write the product in simplest form.

**ANSWER** \_\_\_\_\_

- 5** Find  $\frac{5}{12} \times 1 \frac{4}{5}$ . Write the product in simplest form.

**ANSWER** \_\_\_\_\_

- 6** Find  $1 \frac{3}{8} \times \frac{4}{9}$ . Write the product in simplest form.

**ANSWER** \_\_\_\_\_

## APPLY IT Show your work

- 1** Kai makes  $2\frac{1}{2}$  batches of fruit smoothie. Each batch uses  $\frac{3}{4}$  cup of yogurt. How many cups of yogurt does Kai use?

WORK SPACE

ANSWER \_\_\_\_\_

- 2** The art club paints  $\frac{5}{6}$  of a mural panel. A full panel needs  $1\frac{4}{5}$  ounces of blue paint. How many ounces of blue paint does the club need?

WORK SPACE

ANSWER \_\_\_\_\_

## CHALLENGE One step up

A science tank holds  $3\frac{3}{4}$  liters when full. It is  $\frac{4}{5}$  full. Students use  $\frac{2}{3}$  of the water that is in the tank. How many liters of water do they use?

WORK SPACE AND ANSWER

## PART 1 • PRACTICE

| # | PROBLEM                                                         | ANSWER       |
|---|-----------------------------------------------------------------|--------------|
| 1 | Find $4/5 \times 5/8$ . Write the product in simplest form.     | <b>1/2</b>   |
| 2 | Find $9/10 \times 4/9$ . Write the product in simplest form.    | <b>2/5</b>   |
| 3 | Find $1\ 1/4 \times 4/5$ . Write the product in simplest form.  | <b>1</b>     |
| 4 | Find $1\ 1/5 \times 5/6$ . Write the product in simplest form.  | <b>1</b>     |
| 5 | Find $5/12 \times 1\ 4/5$ . Write the product in simplest form. | <b>3/4</b>   |
| 6 | Find $1\ 3/8 \times 4/9$ . Write the product in simplest form.  | <b>11/18</b> |

## PART 2 • APPLY IT

- 1 **7/8 cups** Change  $2\ 1/2$  to  $5/2$ , then multiply  $5/2 \times 3/4 = 15/8$ . Write  $15/8$  as  $1\ 7/8$ .
- 1 **1/2 ounces** Change  $1\ 4/5$  to  $9/5$ , then multiply  $5/6 \times 9/5 = 3/2$ . Write  $3/2$  as  $1\ 1/2$ .

## CHALLENGE

**2 liters**

Accept equivalent fraction forms, but students should simplify when the prompt asks for simplest form.  
Accept  $15/8$  for  $1\ 7/8$  and  $3/2$  for  $1\ 1/2$ .