

Fraction Power Moves

Multiply and divide fractions and mixed numbers.

GRADE 6 • MA.6.NSO.2.2

MA.6.NSO.2.2 "Extend previous understanding of multiplication and division to compute products and quotients of positive fractions by positive fractions, including mixed numbers, with procedural fluency."

NAME _____

DATE _____

MULTIPLY OR DIVIDE

To multiply fractions, multiply the numerators and multiply the denominators. To divide by a fraction, multiply by its reciprocal. Change mixed numbers to improper fractions before you compute, then simplify your answer.

WORKED EXAMPLE

$$2/11 \div 5/6$$

1. Keep 2/11 and multiply by the reciprocal of 5/6.
2. $2/11 \times 6/5 = 12/55$.
3. 12/55 is already simplified.

Answer: 12/55

PRACTICE 6 problems

1 $3/8 \times 4/15$

ANSWER _____

2 $7/9 \div 14/27$

ANSWER _____

3 $1\ 2/3 \times 3/5$

ANSWER _____

4 $2\ 1/4 \div 3/10$

ANSWER _____

5 $5/12 \times 1\ 4/5$

ANSWER _____

6 $3\ 1/6 \div 1\ 7/12$

ANSWER _____

APPLY IT Show your work

- 1** A robotics club has $3\frac{3}{4}$ meters of wire. Each mini robot needs $\frac{5}{8}$ meter of wire. How many mini robots can the club make?

WORK SPACE

ANSWER _____

- 2** Jordan spends $2\frac{1}{4}$ hours editing a video. Jordan uses $\frac{4}{9}$ of that time to add captions. How many hours does Jordan spend adding captions?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A club has $4\frac{1}{2}$ yards of ribbon. Each bow uses $\frac{3}{8}$ yard of ribbon. The club gives $\frac{2}{3}$ of the bows to new members. How many bows do new members receive?

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	$3/8 \times 4/15$	1/10
2	$7/9 \div 14/27$	1 1/2
3	$1\ 2/3 \times 3/5$	1
4	$2\ 1/4 \div 3/10$	7 1/2
5	$5/12 \times 1\ 4/5$	3/4
6	$3\ 1/6 \div 1\ 7/12$	2

PART 2 • APPLY IT

1. **6 mini robots** Change $3\ 3/4$ to $15/4$. Compute $15/4 \div 5/8 = 15/4 \times 8/5 = 6$.
2. **1 hour** Change $2\ 1/4$ to $9/4$. Compute $9/4 \times 4/9 = 1$.

CHALLENGE

8 bows

Accept equivalent simplified fractions and improper fractions when they are mathematically correct. For mixed-number answers, accept either the mixed number or its equivalent improper fraction.