

Fraction Power Moves

Multiply fractions and divide with unit fractions.

GRADE 5 • 5.NF.B

CCSS.Math.Content.5.NF.B "Apply and extend previous understandings of multiplication and division to multiply and divide fractions."

NAME _____

DATE _____

THE BIG IDEA

To multiply fractions, multiply numerators and denominators, then simplify. To divide a whole number by a unit fraction, ask how many unit-fraction pieces fit in the whole. To divide a unit fraction by a whole number, split it into equal parts.

WORKED EXAMPLE

Find $7/13 \times 11$.

1. Multiply 7 by 11: 77.
2. Keep the denominator 13.
3. Write the product as 77/13.
4. 77/13 is already simplified.

Answer: 77/13

PRACTICE 6 problems

1 Find $2/5 \times 6$.

ANSWER _____

2 Find $1/8 \div 2$.

ANSWER _____

3 Find $5 \times 3/10$.

ANSWER _____

4 Find $12 \div 1/3$.

ANSWER _____

5 Find $3/8 \times 5/6$.

ANSWER _____

6 Find $15 \div 1/5$.

ANSWER _____

APPLY IT Show your work

- 1** During a $\frac{3}{5}$ -hour game design club meeting, students spend $\frac{2}{3}$ of the time planning their game. How many hours do they spend planning?

WORK SPACE

ANSWER _____

- 2** A streamer has 6 hours of recorded video. Each highlight clip is $\frac{1}{4}$ hour long. How many highlight clips can the streamer make?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A runner completes $\frac{4}{5}$ of a $2\frac{1}{2}$ -mile training route. How far does the runner go? Explain why the answer is less than $2\frac{1}{2}$ miles.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Find $2/5 \times 6$.	12/5
2	Find $1/8 \div 2$.	1/16
3	Find $5 \times 3/10$.	3/2
4	Find $12 \div 1/3$.	36
5	Find $3/8 \times 5/6$.	5/16
6	Find $15 \div 1/5$.	75

PART 2 • APPLY IT

1. **2/5 hour** Multiply $3/5 \times 2/3 = 6/15$. Simplify $6/15$ to $2/5$.
2. **24 highlight clips** Find how many fourth-hour clips fit into 6 hours: $6 \div 1/4 = 24$.

CHALLENGE

2 miles; $4/5$ is less than 1, so multiplying by $4/5$ makes $2\frac{1}{2}$ smaller.

Accept equivalent fractions and mixed-number forms when they are simplified correctly. For the challenge, accept any clear explanation that multiplying by a fraction less than 1 makes the product smaller.