

Rational Number Power

Multiply and divide fractions, mixed numbers, and decimals.

GRADE 6 • TEKS 6.3.E

6.3.E "multiply and divide positive rational numbers fluently."

NAME _____

DATE _____

CHOOSE THE OPERATION

To multiply fractions, multiply the numerators and multiply the denominators, then simplify. To divide by a fraction, multiply by its reciprocal. For decimals, use place value carefully or rewrite the decimals as fractions.

WORKED EXAMPLE

$$7/8 \times 4/9$$

1. Multiply the numerators: $7 \times 4 = 28$.
2. Multiply the denominators: $8 \times 9 = 72$.
3. Simplify $28/72$ by dividing both numbers by 4: $7/18$.

Answer: $7/18$

PRACTICE 6 problems

1 $3/5 \times 2/3$

ANSWER _____

2 $5/6 \div 1/2$

ANSWER _____

3 1.2×0.5

ANSWER _____

4 $3.6 \div 0.6$

ANSWER _____

5 $1 \frac{1}{2} \times 2/5$

ANSWER _____

6 $5/6 \div 2 \frac{1}{2}$

ANSWER _____

APPLY IT Show your work

- 1** A game download is 2.5 gigabytes. It downloads at a rate of 0.5 gigabyte per minute. How many minutes will the download take?

WORK SPACE

ANSWER _____

- 2** A music playlist lasts $2\frac{1}{2}$ hours. Priya listens to $\frac{3}{5}$ of the playlist. How many hours does she listen?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Evaluate $(1\frac{1}{2} \div \frac{3}{5}) \times \frac{2}{3}$. Show your steps.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	$3/5 \times 2/3$	2/5
2	$5/6 \div 1/2$	5/3
3	1.2×0.5	0.6
4	$3.6 \div 0.6$	6
5	$1\ 1/2 \times 2/5$	3/5
6	$5/6 \div 2\ 1/2$	1/3

PART 2 • APPLY IT

1. **5 minutes** Divide the total size by the download rate: $2.5 \div 0.5 = 5$.
2. **1 1/2 hours** Multiply the total time by the part listened to: $2\ 1/2 \times 3/5 = 3/2$, or $1\ 1/2$.

CHALLENGE

1 2/3

Accept equivalent simplified fractions, improper fractions, or mixed numbers when they have the correct value. For decimal answers, accept equivalent fraction forms when appropriate.