

Flip and Divide

Compute fraction quotients and use them in real situations.

GRADE 6 • NY-6.NS.1

NY-6.NS.1 "Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions."

NAME _____

DATE _____

DIVIDE BY A FRACTION

Division can tell how many groups of one fraction fit into another amount. To divide by a fraction, multiply by its reciprocal, then simplify the product.

WORKED EXAMPLE

Find $3/5 \div 9/10$.

1. Keep $3/5$ and change $\div 9/10$ to $\times 10/9$.
2. Multiply: $3/5 \times 10/9 = 30/45$.
3. Simplify $30/45$ to $2/3$.

Answer: $2/3$

PRACTICE 6 problems

- 1** Find $1/2 \div 1/4$. Write the answer in simplest form.

ANSWER _____

- 2** Find $7/8 \div 7/16$. Write the answer in simplest form.

ANSWER _____

- 3** Find $11/12 \div 1/6$. Write the answer in simplest form.

ANSWER _____

- 4** Find $4/7 \div 2/7$. Write the answer in simplest form.

ANSWER _____

- 5** Find $8/11 \div 4/11$. Write the answer in simplest form.

ANSWER _____

- 6** Find $6 \div 3/4$. Write the answer in simplest form.

ANSWER _____

APPLY IT Show your work

- 1** Maya has $\frac{7}{8}$ hour to record short videos. Each video takes $\frac{1}{16}$ hour to record. How many videos can Maya record?

WORK SPACE

ANSWER _____

- 2** A craft club has $2\frac{1}{4}$ yards of cord. Each bracelet needs $\frac{3}{8}$ yard of cord. How many bracelets can the club make?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Solve for x : $x \div \frac{7}{12} = 3\frac{1}{2}$. Explain how you used the inverse operation.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Find $1/2 \div 1/4$. Write the answer in simplest form.	2
2	Find $7/8 \div 7/16$. Write the answer in simplest form.	2
3	Find $11/12 \div 1/6$. Write the answer in simplest form.	5 1/2
4	Find $4/7 \div 2/7$. Write the answer in simplest form.	2
5	Find $8/11 \div 4/11$. Write the answer in simplest form.	2
6	Find $6 \div 3/4$. Write the answer in simplest form.	8

PART 2 • APPLY IT

- 14 videos** Compute $7/8 \div 1/16 = 7/8 \times 16/1 = 14$.
- 6 bracelets** Convert $2 \frac{1}{4}$ to $9/4$, then compute $9/4 \div 3/8 = 9/4 \times 8/3 = 6$.

CHALLENGE

$x = 2 \frac{1}{24}$. Multiply $3 \frac{1}{2}$ by $7/12$: $7/2 \times 7/12 = 49/24 = 2 \frac{1}{24}$.

Accept equivalent simplified forms, including improper fractions or mixed numbers, for numerical practice answers. For the challenge, accept a correct explanation that multiplying both sides by $7/12$ undoes division by $7/12$.