

Flip and Divide

Divide fractions by multiplying by a reciprocal.

GRADE 6 • 6.NS.A

CCSS.Math.Content.6.NS.A "Apply and extend previous understandings of multiplication and division to divide fractions by fractions."

NAME _____

DATE _____

DIVIDE BY FLIPPING

To divide by a fraction, multiply by its reciprocal. Keep the first fraction, change $\div$ to $\times$, and flip the second fraction before multiplying.

WORKED EXAMPLE

$$7/12 \div 5/8$$

1. Keep $7/12$. Change $\div$ to $\times$, and flip $5/8$ to $8/5$.
2. Multiply: $7/12 \times 8/5 = 56/60$.
3. Simplify $56/60$ to $14/15$.

Answer: 14/15

PRACTICE 6 problems

1 Find: $2/3 \div 4/9$

ANSWER _____

2 Find: $3/4 \div 1/6$

ANSWER _____

3 Find: $11/13 \div 2/3$

ANSWER _____

4 Find: $9/10 \div 3/11$

ANSWER _____

5 Find: $1 \frac{1}{2} \div 2/9$

ANSWER _____

6 Find: $4 \frac{1}{3} \div 13/6$

ANSWER _____

APPLY IT Show your work

- 1** The esports club plans $2\frac{1}{4}$ hours of practice. Each match lasts $\frac{3}{4}$ hour. How many matches fit exactly into the practice time?

WORK SPACE

ANSWER _____

- 2** For a game-night prize table, the club has $\frac{2}{3}$ of a box of trading cards. Each prize bundle uses $\frac{1}{9}$ of a box. How many prize bundles can the club make?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Find: $3\frac{1}{3} \div 2\frac{1}{4}$

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Find: $2/3 \div 4/9$	3/2
2	Find: $3/4 \div 1/6$	9/2
3	Find: $11/13 \div 2/3$	33/26
4	Find: $9/10 \div 3/11$	33/10
5	Find: $1\ 1/2 \div 2/9$	27/4
6	Find: $4\ 1/3 \div 13/6$	2

PART 2 • APPLY IT

1. **3 matches** Divide $2\ 1/4$ by $3/4$. Rewrite $2\ 1/4$ as $9/4$, then $9/4 \div 3/4 = 3$.
2. **6 prize bundles** Divide $2/3$ by $1/9$. Multiply $2/3 \times 9/1$ to get 6.

CHALLENGE

40/27, or 1 13/27

Accept equivalent fractions and either improper fractions or mixed numbers when appropriate. Students should multiply by the reciprocal of the divisor, not the dividend.