

Fraction Mission Control

Multiply and divide fractions in simplest form.

GRADE 6 • 6.CE.1.b

6.CE.1.b "Multiply and divide fractions (proper or improper) and mixed numbers that include denominators of 12 or less. Answers are expressed in simplest form.*"

NAME _____

DATE _____

MULTIPLY OR FLIP

To multiply fractions or mixed numbers, change mixed numbers to improper fractions, multiply the numerators and denominators, and simplify. To divide, change mixed numbers first, multiply by the reciprocal of the second fraction, then simplify or write a mixed number.

WORKED EXAMPLE

$$4\frac{2}{7} * 3/11$$

1. Change the mixed number: $4\frac{2}{7} = 30/7$.
2. Multiply: $30/7 * 3/11 = 90/77$.
3. Write the improper fraction as a mixed number: $90/77 = 1\frac{13}{77}$.

Answer: 1 13/77

PRACTICE 6 problems

1 $5/6 * 8/9$

ANSWER _____

2 $10/12 \div 5/8$

ANSWER _____

3 $1\frac{5}{6} * 6/10$

ANSWER _____

4 $9/10 \div 5/12$

ANSWER _____

5 $5\frac{1}{8} * 8/9$

ANSWER _____

6 $6\frac{5}{12} \div 8/9$

ANSWER _____

APPLY IT Show your work

- 1** A student watches $\frac{5}{6}$ of a $1\frac{5}{8}$ -hour livestream. How many hours of the livestream does the student watch?

WORK SPACE

ANSWER _____

- 2** A video editor has $6\frac{1}{6}$ minutes of raw footage. Each short clip is $\frac{1}{6}$ minute long. How many complete clips can the editor make?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A gaming team has 6 GB of free storage. A game update uses $\frac{5}{6}$ of the storage. Each downloadable map needs $\frac{1}{8}$ GB. How many whole maps can fit in the storage left after the update?

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	$5/6 * 8/9$	20/27
2	$10/12 \div 5/8$	1 1/3
3	$1\ 5/6 * 6/10$	1 1/10
4	$9/10 \div 5/12$	2 4/25
5	$5\ 1/8 * 8/9$	4 5/9
6	$6\ 5/12 \div 8/9$	7 7/32

PART 2 • APPLY IT

1. **1 17/48 hours** Change $1\ 5/8$ to $13/8$. Multiply $13/8 * 5/6 = 65/48 = 1\ 17/48$.
2. **37 clips** Change $6\ 1/6$ to $37/6$. Divide $37/6$ by $1/6$ to get 37.

CHALLENGE

8 maps

Accept equivalent answers only when they are in simplest form. For answers greater than 1, accept either the listed mixed number or an equivalent simplified improper fraction.