

Fraction Piece Power

Combine and compare parts of the same whole.

GRADE 5 • 5.NR.3

5.NR.3 "Describe fractions and perform operations with fractions to solve relevant, mathematical problems using part-whole strategies and visual models."

NAME _____

DATE _____

MATCH THE PIECES

To add or subtract fractions, make sure the pieces are the same size. Use a common denominator, then add or subtract the numerators. Fraction strips or bar models can help you see equal-size pieces.

WORKED EXAMPLE

Find $\frac{5}{12} + \frac{1}{3}$.

1. Rename $\frac{1}{3}$ as $\frac{4}{12}$.
2. Add the twelfths: $\frac{5}{12} + \frac{4}{12} = \frac{9}{12}$.
3. Simplify $\frac{9}{12}$ to $\frac{3}{4}$.

Answer: $\frac{3}{4}$

PRACTICE 6 problems

1 Find $\frac{2}{5} + \frac{1}{5}$.

ANSWER _____

2 Find $\frac{7}{8} - \frac{3}{8}$.

ANSWER _____

3 Find $\frac{1}{3} + \frac{1}{6}$.

ANSWER _____

4 Find $\frac{5}{6} - \frac{1}{4}$.

ANSWER _____

5 Find $\frac{3}{4} + \frac{2}{3}$.

ANSWER _____

6 Find $\frac{7}{10} - \frac{1}{5}$.

ANSWER _____

APPLY IT Show your work

- 1** For a robotics project, Jalen uses $\frac{2}{3}$ meter of blue wire and $\frac{3}{4}$ meter of red wire. How many meters of wire does he use altogether?

WORK SPACE

ANSWER _____

- 2** During a $2\frac{1}{2}$ -hour game-design club, Elena spends $\frac{3}{4}$ hour planning characters. How much club time is left?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A music playlist has $2\frac{1}{3}$ hours of songs. You add $\frac{3}{4}$ hour of new songs, then remove $\frac{5}{6}$ hour of songs. How long is the playlist now?

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Find $2/5 + 1/5$.	3/5
2	Find $7/8 - 3/8$.	1/2
3	Find $1/3 + 1/6$.	1/2
4	Find $5/6 - 1/4$.	7/12
5	Find $3/4 + 2/3$.	1 5/12
6	Find $7/10 - 1/5$.	1/2

PART 2 • APPLY IT

- 1 5/12 meters** Rename $2/3$ as $8/12$ and $3/4$ as $9/12$. Add $8/12 + 9/12 = 17/12 = 1 5/12$.
- 1 3/4 hours** Rename $2 1/2$ as $2 2/4$. Subtract $2 2/4 - 3/4 = 1 3/4$.

CHALLENGE

2 1/4 hours

Accept equivalent fractions when the calculation is correct, such as $6/12$ for $1/2$. Encourage students to simplify fractions and write answers greater than 1 as mixed numbers.