

Fraction Power Moves

Add, subtract, and break apart fractions with equal denominators.

GRADE 4 • TEKS 4.3

4.3 "Number and operations. The student applies mathematical process standards to represent and generate fractions to solve problems. The student is expected to: represent a fraction a/b as a sum of fractions $1/b$..."

NAME _____

DATE _____

SAME DENOMINATOR RULE

When fractions have the same denominator, add or subtract the numerators. Keep the denominator the same, then simplify if you can. If the numerator is greater than the denominator, you can also write the answer as a mixed number.

WORKED EXAMPLE

Find $7/12 + 2/12$.

1. The denominators are both 12.
2. Add the numerators: $7 + 2 = 9$.
3. Write the sum: $9/12$.
4. Simplify: $9/12 = 3/4$.

Answer: $3/4$

PRACTICE 6 problems

1 Add. Simplify if you can: $2/7 + 3/7 =$ ____

ANSWER _____

2 Subtract. Simplify if you can: $9/10 - 4/10 =$ ____

ANSWER _____

3 Add. Write the sum as an improper fraction and a mixed number: $5/6 + 4/6 =$ ____

ANSWER _____

4 Find x : $x/8 + 2/8 = 7/8$

ANSWER _____

5 Write $>$, $<$, or $=$: $3/5 + 1/5$ ____ $2/5 + 2/5$

ANSWER _____

6 Subtract. Simplify if you can: $7/8 - 3/8 =$ ____

ANSWER _____

APPLY IT Show your work

- 1** Imani tested $\frac{3}{8}$ of a new video game level on Monday and $\frac{2}{8}$ of the level on Tuesday. What fraction of the level did she test in all?

WORK SPACE

ANSWER _____

- 2** Luis's water bottle was $\frac{9}{10}$ full. He drank $\frac{3}{10}$ of the whole bottle during soccer practice. What fraction of the bottle was still full?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Find two different ways to make $1\frac{1}{8}$ by adding two fractions with denominator 8. Write each sum as a mixed number. Explain why both sums have the same value.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Add. Simplify if you can: $\frac{2}{7} + \frac{3}{7} = \underline{\hspace{1cm}}$	$\frac{5}{7}$
2	Subtract. Simplify if you can: $\frac{9}{10} - \frac{4}{10} = \underline{\hspace{1cm}}$	$\frac{1}{2}$
3	Add. Write the sum as an improper fraction and a mixed number: $\frac{5}{6} + \frac{4}{6} = \underline{\hspace{1cm}}$	$\frac{9}{6} = 1 \frac{1}{2}$
4	Find x: $\frac{x}{8} + \frac{2}{8} = \frac{7}{8}$	$x = 5$
5	Write >, <, or =: $\frac{3}{5} + \frac{1}{5} \underline{\hspace{1cm}} \frac{2}{5} + \frac{2}{5}$	=
6	Subtract. Simplify if you can: $\frac{7}{8} - \frac{3}{8} = \underline{\hspace{1cm}}$	$\frac{1}{2}$

PART 2 • APPLY IT

1. **$\frac{5}{8}$** Add the parts with the same denominator: $\frac{3}{8} + \frac{2}{8} = \frac{5}{8}$.
2. **$\frac{3}{5}$** Subtract: $\frac{9}{10} - \frac{3}{10} = \frac{6}{10}$. Simplify $\frac{6}{10}$ to $\frac{3}{5}$.

CHALLENGE

$\frac{3}{8} + \frac{8}{8} = \frac{11}{8} = 1 \frac{3}{8}$; $\frac{5}{8} + \frac{6}{8} = \frac{11}{8} = 1 \frac{3}{8}$. Both sums have the same value because each pair of numerators adds to 11, and each fraction has denominator 8.

For item 3, require both forms, $\frac{9}{6}$ and $1 \frac{1}{2}$. For items that ask students to simplify, accept only a correct simplified final answer.