LESSON MAKER PRO

# Fraction Paths

*Join, separate, and regroup equal parts*

**GRADE 4 · MT.4.NF.3**

**MT.4.NF.3** "Understand a fraction a/b with a > 1 as a sum of fractions 1/b by: Understanding addition and subtraction of fractions as joining and separating parts referring to the same whole..."

NAME _____ DATE _____

## THE BIG IDEA

Fractions with the same denominator have equal-size parts. When the fractions refer to the same whole, add or subtract their numerators and keep the denominator. With mixed numbers, you can regroup one whole into fractional parts when you need to.

## WORKED EXAMPLE

Find 2 7/10 + 1 6/10.

1. Add the whole numbers: 2 + 1 = 3.
2. Add the tenths: 7/10 + 6/10 = 13/10.
3. Rename 13/10 as 1 3/10. Then 3 + 1 3/10 = 4 3/10.

**Answer: 4 3/10**

## PRACTICE 6 problems

**1** Find 3/8 + 4/8.

**ANSWER** _____

**2** Find 11/12 - 5/12.

**ANSWER** _____

**3** Write 7/6 as a sum of two fractions with denominator 6. Give two different equations.

**ANSWER** _____

_____

**4** Find 1 2/5 + 2 4/5.

**ANSWER** _____

**5** Find 4 1/4 - 1 3/4.

**ANSWER** _____

**6** Find 2 2/3 + 1 2/3.

**ANSWER** _____

## APPLY IT Show your work

**1** At a Montana community library, students read books by authors from Montana Indigenous communities for 1 3/8 hours on Saturday and 1 4/8 hours on Sunday. How many hours did they read in all?

WORK SPACE

**ANSWER** _____

**2** Students at a Montana tribal school pick 4 2/6 pounds of carrots from their school garden. They use 1 5/6 pounds for a community meal. How many pounds of carrots are left?

WORK SPACE

**ANSWER** _____

## CHALLENGE One step up

A classmate says 3 1/5 - 1 4/5 cannot be done because 1/5 is less than 4/5. Find the difference and explain how regrouping helps.

WORK SPACE AND ANSWER

**ANSWER KEY**

# Fraction Paths

**GRADE 4 · MT.4.NF.3**

## PART 1 · PRACTICE

| # | PROBLEM | ANSWER |
|---|---|---|
| 1 | Find 3/8 + 4/8. | **7/8** |
| 2 | Find 11/12 - 5/12. | **6/12, or 1/2** |
| 3 | Write 7/6 as a sum of two fractions with denominator 6. Give two different equations. | **7/6 = 1/6 + 6/6; 7/6 = 2/6 + 5/6** |
| 4 | Find 1 2/5 + 2 4/5. | **4 1/5** |
| 5 | Find 4 1/4 - 1 3/4. | **2 1/2** |
| 6 | Find 2 2/3 + 1 2/3. | **4 1/3** |

## PART 2 · APPLY IT

1. **2 7/8 hours** Add the whole hours and the eighths: 1 + 1 = 2 and 3/8 + 4/8 = 7/8.
2. **2 1/2 pounds** Regroup 4 2/6 as 3 8/6. Then subtract 1 5/6 to get 2 3/6 pounds, or 2 1/2 pounds.

## CHALLENGE

**1 2/5. Regroup 3 1/5 as 2 6/5. Then 2 6/5 - 1 4/5 = 1 2/5.**

Accept equivalent fractions and mixed numbers. For the decomposition problem, accept any two distinct equations that each use two fractions with denominator 6 and total 7/6.