LESSON MAKER PRO

Fraction Split Lab

Show the same fraction in different ways.

GRADE 4 · 4.NOS.E.11

4.NOS.E.11 "Apply understanding of a fraction c/d with d > 1 as a sum of unit fractions (1/d) to decompose a fraction (including fractions greater than 1) into a sum of fractions with the same denominator in more than one way..."

NAME _____ DATE _____

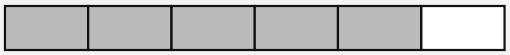
GROUP THE PIECES

You can group unit fractions in different ways. Keep the denominator the same, and check that the numerators add to the starting numerator.

WORKED EXAMPLE

Split 5/6 in two ways.

5/6



1. The bar has 5 shaded sixths.
2. Group them as 2 sixths and 3 sixths.
3. Split the 3 sixths again: 1 sixth and 2 sixths.

Answer: 5/6 = 2/6 + 3/6; 5/6 = 2/6 + 1/6 + 2/6

PRACTICE 4 problems

1 Write two different addition equations for 3/8 using eighths.

ANSWER _____

2 Write two different addition equations for 4/10 using tenths.

ANSWER _____

3 Write two different addition equations for 11/4 using fourths.

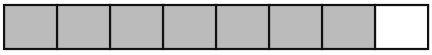
ANSWER _____

4 Write two different addition equations for 8/3 using thirds.

ANSWER _____

APPLY IT Show your work

1 The bar shows Jay's progress through a game level. Write two addition equations for the shaded fraction. Explain one using the bar.

Game level 

ANSWER _____

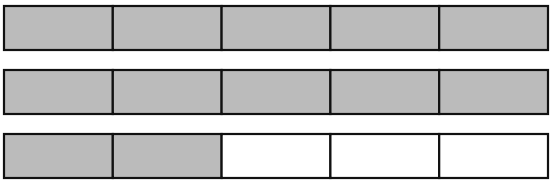
2 For a party, Ava makes 13/4 cups of lemonade. Write two addition equations using fourths. Show full cups in one.

WORK SPACE

ANSWER _____

CHALLENGE One step up

The bars show 12/5. Write two addition equations using fifths. In one, show each full bar as 5/5. Explain why both equations match the bars.



WORK SPACE AND ANSWER

ANSWER KEY

Fraction Split Lab

GRADE 4 · 4.NOS.E.11

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write two different addition equations for 3/8 using eighths.	**3/8 = 1/8 + 2/8; 3/8 = 1/8 + 1/8 + 1/8**
2	Write two different addition equations for 4/10 using tenths.	**4/10 = 1/10 + 3/10; 4/10 = 2/10 + 2/10**
3	Write two different addition equations for 11/4 using fourths.	**11/4 = 4/4 + 4/4 + 3/4; 11/4 = 8/4 + 3/4**
4	Write two different addition equations for 8/3 using thirds.	**8/3 = 3/3 + 3/3 + 2/3; 8/3 = 6/3 + 2/3**

PART 2 · APPLY IT

1. **7/8 = 3/8 + 4/8; 7/8 = 1/8 + 6/8. A group of 3 shaded parts and a group of 4 shaded parts make 7 shaded parts.** Count 7 shaded parts out of 8. Group those parts in two different ways, keeping eighths in each equation.
2. **13/4 = 4/4 + 4/4 + 4/4 + 1/4; 13/4 = 8/4 + 5/4** Three full cups use 12 fourths, leaving 1 fourth. Another split is 8 fourths and 5 fourths.

CHALLENGE

12/5 = 5/5 + 5/5 + 2/5; 12/5 = 10/5 + 2/5. The bars show 5 + 5 + 2 shaded fifths, or 10 shaded fifths and 2 more.

Accept other distinct, correct sums with the required denominator. For the challenge, one equation must show both full bars as separate 5/5 terms.