LESSON MAKER PRO

Unit Fraction Builders

Build fractions and whole numbers from equal parts.

GRADE 4 · 4.NR.4.4

4.NR.4.4 "Represent whole numbers and fractions as the sum of unit fractions."

NAME _____ DATE _____

BUILD WITH ONES

A unit fraction has 1 as its numerator, such as 1/10. To write a fraction as unit fractions, add the same unit fraction once for each part in the numerator. You can also add enough equal unit fractions to make a whole number.

WORKED EXAMPLE

Write 5/12 as a sum of unit fractions.

1. The unit fraction is 1/12.
2. The numerator 5 tells how many 1/12 parts to add.
3. Add five copies of 1/12.

Answer: 5/12 = 1/12 + 1/12 + 1/12 + 1/12 + 1/12

PRACTICE 6 problems

1 Write the shaded amount as a sum of unit fractions.



ANSWER _____

2 Write 3/7 as a sum of unit fractions.

ANSWER _____

3 Write 1 as a sum of unit sixths.

ANSWER _____

4 Write 2 as a sum of unit halves.

ANSWER _____

5 Which sum is equal to 5/8? A. 1/8 + 1/8 + 1/8 + 1/8 + 1/8 B. 1/8 + 1/8 + 1/8 + 1/8 C. 1/5 + 1/5 + 1/5 + 1/5 + 1/5

ANSWER _____

6 Andre writes 4/9 = 1/9 + 1/9 + 1/9. Is Andre correct? Write the correct sum of unit fractions.

ANSWER _____

APPLY IT Show your work

1 Ava spends 3/4 of an hour designing a character for her video game. Her timer marks hours in fourths. Write the time Ava spends as a sum of unit fractions.

WORK SPACE

ANSWER _____

2 A soccer coach plans 2 full hours of practice. Each hour is divided into 3 equal time blocks. Write the total practice time as a sum of unit fractions of an hour.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Write a sum of exactly 5 unit fractions that equals 1. Explain how you know your sum equals 1.

WORK SPACE AND ANSWER

ANSWER KEY

Unit Fraction Builders

GRADE 4 · 4.NR.4.4

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write the shaded amount as a sum of unit fractions.	**4/5 = 1/5 + 1/5 + 1/5 + 1/5**
2	Write 3/7 as a sum of unit fractions.	**3/7 = 1/7 + 1/7 + 1/7**
3	Write 1 as a sum of unit sixths.	**1 = 1/6 + 1/6 + 1/6 + 1/6 + 1/6 + 1/6**
4	Write 2 as a sum of unit halves.	**2 = 1/2 + 1/2 + 1/2 + 1/2**
5	Which sum is equal to 5/8? A. 1/8 + 1/8 + 1/8 + 1/8 + 1/8 B. 1/8 + 1/8 + 1/8 + 1/8 C. 1/5 + 1/5 + 1/5 + 1/5 + 1/5	**A**
6	Andre writes 4/9 = 1/9 + 1/9 + 1/9. Is Andre correct? Write the correct sum of unit fractions.	**No. 4/9 = 1/9 + 1/9 + 1/9 + 1/9**

PART 2 · APPLY IT

1. **3/4 = 1/4 + 1/4 + 1/4** Each fourth of an hour is 1/4 hour. Ava uses three fourth-hour parts.
2. **2 = 1/3 + 1/3 + 1/3 + 1/3 + 1/3 + 1/3** Each time block is 1/3 hour. Two hours contain six 1/3-hour blocks.

CHALLENGE

1/2 + 1/4 + 1/8 + 1/16 + 1/16 = 1, because 8/16 + 4/16 + 2/16 + 1/16 + 1/16 = 16/16.

Accept unit-fraction terms in any order. For the challenge, accept any sum of exactly five unit fractions that equals 1 and has a valid explanation.