LESSON MAKER PRO

Fair Share Math

Turn equal sharing into fractions and mixed numbers.

GRADE 5 · 5.NF.3

5.NF.3 "Interpret a fraction as division of the numerator by the denominator (a/b = a ÷ b). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers by using visual fraction models or..."

NAME _____ DATE _____

A FRACTION IS DIVISION

The fraction a/b means a ÷ b. When you share a things equally among b groups, the fraction tells how much each group gets. If each group gets more than one whole, you can write the answer as a mixed number.

WORKED EXAMPLE

Share 13 apples equally among 5 people. How many apples does each person get?

1. Write the sharing as division: 13 ÷ 5.
2. Write the division as a fraction: 13 ÷ 5 = 13/5.
3. Each person gets 2 whole apples, with 3 apples left to share. Each share is 2 3/5 apples.

Answer: 2 3/5 apples per person

PRACTICE 6 problems

1 Write 7 ÷ 3 as a fraction and a mixed number.

ANSWER _____

2 Write 6 ÷ 8 as a fraction in simplest form.

ANSWER _____

3 Write 10/3 as division, then as a mixed number.

ANSWER _____

4 Write 16 ÷ 7 as a fraction and a mixed number.

ANSWER _____

5 Write 12 ÷ 6 as a fraction and a whole number.

ANSWER _____

6 Write 3 ÷ 10 as a fraction.

ANSWER _____

APPLY IT Show your work

1 A class has 17 meters of colored tape to share equally among 6 poster borders. How many meters of tape go on each border? Write a division equation and give a mixed-number answer.

WORK SPACE

ANSWER _____

2 At a game night, 7 pizzas are shared equally by 10 friends. How much pizza does each friend get? Write a division equation and give a fraction answer.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Team A shares 23 cups of trail mix equally among 6 hikers. Team B shares 15 cups equally among 4 hikers. Which team gets more per hiker, and by how much? Use equations to explain.

WORK SPACE AND ANSWER

ANSWER KEY

Fair Share Math

GRADE 5 · 5.NF.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write 7 ÷ 3 as a fraction and a mixed number.	**7/3 = 2 1/3**
2	Write 6 ÷ 8 as a fraction in simplest form.	**3/4**
3	Write 10/3 as division, then as a mixed number.	**10 ÷ 3 = 3 1/3**
4	Write 16 ÷ 7 as a fraction and a mixed number.	**16/7 = 2 2/7**
5	Write 12 ÷ 6 as a fraction and a whole number.	**12/6 = 2**
6	Write 3 ÷ 10 as a fraction.	**3/10**

PART 2 · APPLY IT

1. **17 ÷ 6 = 17/6 = 2 5/6 meters per border** Divide the total length by the number of borders. Each border gets 17/6 meters, or 2 5/6 meters.
2. **7 ÷ 10 = 7/10 of a pizza per friend** Divide 7 pizzas by 10 friends. The quotient 7/10 is each friend's share of one pizza.

CHALLENGE

Team A gets 23 ÷ 6 = 3 5/6 cups per hiker. Team B gets 15 ÷ 4 = 3 3/4 cups per hiker. Since 3 5/6 - 3 3/4 = 1/12, Team A gets 1/12 cup more per hiker.

Accept equivalent fractions or mixed numbers when the prompt does not require a specific form. For the challenge, accept any correct comparison that shows the difference is 1/12 cup per hiker.