

Share It Fairly

Use fractions to show equal sharing.

GRADE 5 • 5.NF.B.3

CCSS.Math.Content.5.NF.B.3 "Interpret a fraction as division of the numerator by the denominator ($a \div b = \frac{a}{b}$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g...."

NAME _____

DATE _____

FRACTIONS SHOW DIVISION

A fraction a/b means a divided by b . When you share whole amounts equally, divide the total amount by the number of equal shares. A quotient greater than 1 can be written as a mixed number.

WORKED EXAMPLE

Share 21 cups of trail mix equally among 10 campers. How many cups does each camper get?

1. Write the division as a fraction: $21 \div 10$.
2. 10 goes into 21 two whole times.
3. $2 \times 10 = 20$, so 1 cup is left.
4. $21 \div 10 = 2 \frac{1}{10}$.

Answer: Each camper gets $2 \frac{1}{10}$ cups.

PRACTICE 6 problems

- 1** Write as a division expression: $7/3 = \underline{\hspace{1cm}}$

ANSWER _____

- 2** Write as a fraction and a mixed number: $13 \div 5 = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

ANSWER _____

- 3** Share 8 pounds of clay equally among 3 students. How many pounds of clay does each student get?

ANSWER _____

- 4** Find the quotient. Write your answer as a mixed number: $17 \div 6$.

ANSWER _____

- 5** Complete the equation: $15/8 = 15 \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \frac{\underline{\hspace{1cm}}}{\underline{\hspace{1cm}}}$

ANSWER _____

- 6** In $22/7$, what number is being divided? Between what two whole numbers does $22/7$ lie?

ANSWER _____

APPLY IT Show your work

- 1** Jordan has 23 minutes of video footage. They split it into 5 equal video clips. How many minutes long is each clip?

WORK SPACE

ANSWER _____

- 2** An art club has 29 yards of ribbon to divide equally among 6 teams. How many yards of ribbon does each team get? Between what two whole numbers does the amount lie?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A 37-ounce container of paint is shared equally among 9 teams. How many ounces does each team get? Explain how you know your mixed number is correct.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Write as a division expression: $7/3 = \underline{\hspace{1cm}}$	$7 \div 3$
2	Write as a fraction and a mixed number: $13 \div 5 = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$	$13/5 = 2 \frac{3}{5}$
3	Share 8 pounds of clay equally among 3 students. How many pounds of clay does each student get?	$8/3$ pound, or $2 \frac{2}{3}$ pounds
4	Find the quotient. Write your answer as a mixed number: $17 \div 6$.	$2 \frac{5}{6}$
5	Complete the equation: $15/8 = 15 \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \underline{\hspace{1cm}} / \underline{\hspace{1cm}}$	$15/8 = 15 \div 8 = 1 \frac{7}{8}$
6	In $22/7$, what number is being divided? Between what two whole numbers does $22/7$ lie?	22 is being divided. $22/7$ lies between 3 and 4.

PART 2 • APPLY IT

- $4 \frac{3}{5}$ minutes** Write $23 \div 5$ as $23/5$. Since $5 \times 4 = 20$ with 3 left over, each clip is $4 \frac{3}{5}$ minutes long.
- $4 \frac{5}{6}$ yards; between 4 and 5** Write $29 \div 6$ as $29/6$. Since $6 \times 4 = 24$ with 5 yards left, each team gets $4 \frac{5}{6}$ yards.

CHALLENGE

Each team gets $4 \frac{1}{9}$ ounces. Since $9 \times 4 = 36$, 1 ounce remains, so the share is $4 \frac{1}{9}$ ounces.

Accept equivalent improper fractions or mixed numbers when the value is correct. For sharing problems, accept answers with the correct unit and equivalent forms such as $23/5$ or $4 \frac{3}{5}$.