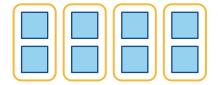
How can I represent division with a fraction?

Review

Fractions as Division

Write the division expression as a fraction and find the quotient.

Divide 8 into 4 equal groups.



Write the division as a fraction.

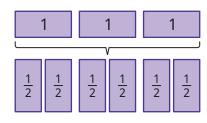
$$\frac{8}{4} = 2$$
 Which number goes in the numerator?

8 divided by 4 is the same as the fraction $\frac{8}{4}$. Both equal 2.

Dividing Whole Numbers

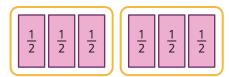
Divide: 3 ÷ 2

Split each whole into 2 parts.



Make 2 equal groups.

3 halves is the same as 2 halves plus 1 half, or 1 whole plus 1 half.



$$3 \div 2 = \frac{3}{2} = 1\frac{1}{2}$$

3 divided into 2 equal parts equals $1\frac{1}{2}$ for each part.

Try It

Write the division problem represented by the fraction.

 $\frac{2}{3}$

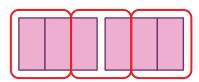


The numerator tells what number is being divided into smaller parts.

A fraction represents division of the numerator by the <u>denominator</u>.

Three friends share two pizzas. How much pizza does each friend get?

Divide 2 wholes into thirds.



Draw circles to make 3 equal groups. See model.

There are $\frac{2}{}$ thirds in each group.

Each friend gets $\frac{3}{2}$ of a pizza.

Practice

Divide to solve each problem and complete each sentence. Show your work.

Problem

Show Your Work

Anya has 8 cups of trail mix to divide among 5 bowls. She wants to pour the same amount of trail mix into each bowl. How many cups of trail mix will she pour into each bowl?

$$8 \div 5 = \frac{8}{5}$$
 O How do I divide 8 into 5 parts

Solution

Each bowl will get $\frac{8}{5}$ or $1\frac{3}{5}$ cups of trail mix.

Diego has 6 cups of orange juice and 5 glasses. He wants to pour the same amount into each glass. How many cups of orange juice will he pour into each glass?

$$6 \div 5 = \frac{6}{5} = 1\frac{1}{5}$$

Solution

He will pour $\frac{\frac{6}{5} \text{ or } 1\frac{1}{5}}{5}$ cups into each glass.

Ben uses 5 gallons of paint to paint 3 rooms in his house. He uses the same amount of paint in each room. How much paint does Ben use in each room?

$$5 \div 3 = \frac{5}{3} = 1\frac{2}{3}$$

Solution

Ben uses $\frac{\frac{5}{3} \text{ or } 1\frac{2}{3}}{3}$ gallons of paint in each room.

Scarlett runs 7 miles in 8 days. If she runs the same distance each day, how far does she run each day?

$$7 \div 8 = \frac{7}{8}$$

Solution

She runs 8 mile each day.



How are fractions and mixed numbers used to solve division problems?

A division problem can be represented as a fraction. When whole numbers are divided, the answer may result in a fraction or a mixed number.