Support Coach™

3 TARGET Foundational Mathematics

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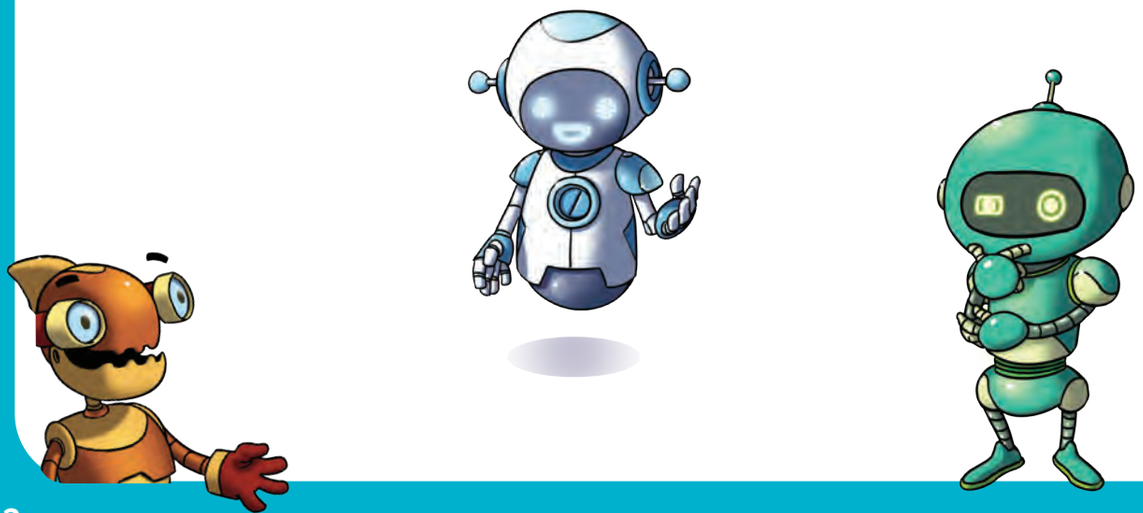

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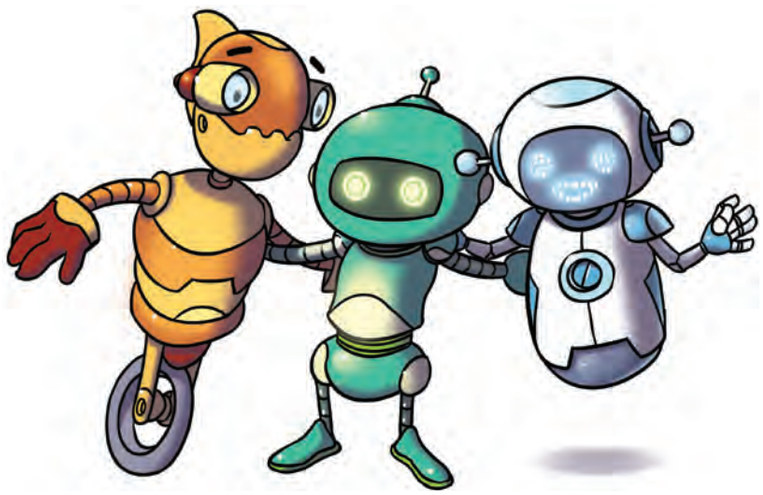

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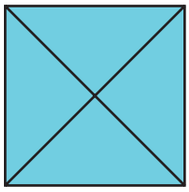
LESSON 1

Understanding Unit Fractions

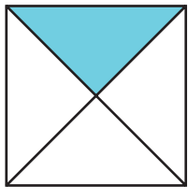
PLUG IN Finding Equal Parts

A whole can be broken into **equal parts**.



4 fourths

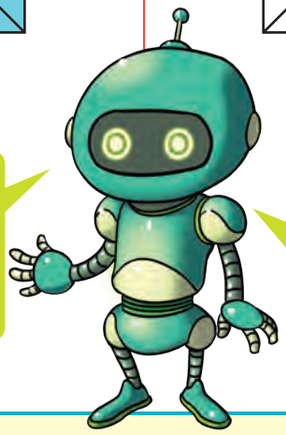
Each part of the square is a part of the whole.



1 fourth

This square also has 4 equal parts.

4 fourths



The whole square is broken into 4 equal parts, or 4 fourths.

Each part is 1 fourth of the whole.

I see! Equal parts of the same whole may not have the same shape.

Words to Know

equal parts
parts that are the same size

DISCUSS Wes draws a rectangle to show thirds. What does thirds mean?

A You can break a shape into equal parts.

DO Break the shape into thirds.

1. How many parts?
2. Are the parts equal? Write *yes* or *no*.
3. How many thirds?
4. Tell about each part.

3 parts

equal: _____

The whole rectangle is equal to _____ thirds.

Each part is _____ third of the whole.

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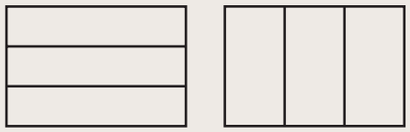
B A shape can be broken into equal parts in more than one way.

DO

1. Count equal parts.
2. Compare equal parts.



Rectangle *A* Rectangle *B*

Rectangle A: 3 equal parts

Rectangle B: _____ equal parts

Are the equal parts in Rectangle A the same as those in Rectangle B? _____

C You can draw lines to break a shape into equal parts.

DO

1. Break the circle into halves.
2. How many equal parts?
3. Count the halves.
4. Tell about each part.

2 equal parts

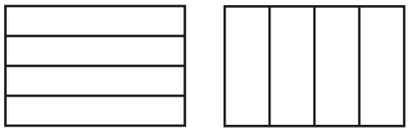
The whole circle is equal to _____ halves.

Each part is _____ half of the whole.

PRACTICE

You can show fourths in different ways.

1



Rectangle *A* Rectangle *B*

Rectangle A: 4 equal parts

Rectangle B: _____ equal parts

Are the equal parts in Rectangle *A* the same as those in Rectangle *B*? _____

Draw lines to break the rectangle into fourths. Then write the answers.

2

How many equal parts? _____

The whole rectangle is equal to _____ fourths. Each part is _____ fourth of the whole.

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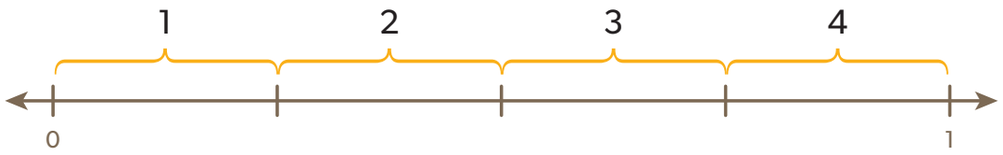
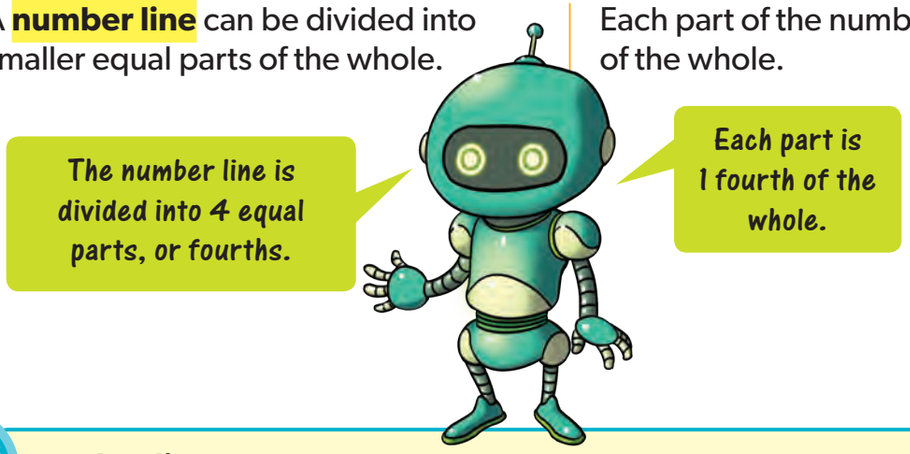
POWER UP

Understanding Fractional Parts of a Number Line



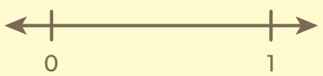
A **number line** can be divided into smaller equal parts of the whole.

Each part of the number line is a part of the whole.



Words to Know

number line
a line with equally placed tic marks named by numbers

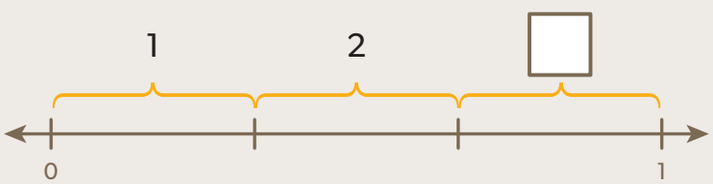


DISCUSS What does it mean to say a number line is divided into fourths?

A A number line between 0 and 1 can be divided into equal parts.

DO

1. Count the equal parts between 0 and 1 on the number line.
2. Label each equal part of the number line.
3. Count the thirds.
4. Tell about each part.



3 equal parts

The whole number line is equal to _____ thirds.

Each part is _____ third of the whole.

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B You can divide a number line into equal parts.

DO

1. Divide the number line into halves.
2. How many equal parts?
3. Count the halves.
4. Tell about each part.

__2__ equal parts

The whole number line is equal to _____ halves.

Each part is _____ half of the whole.

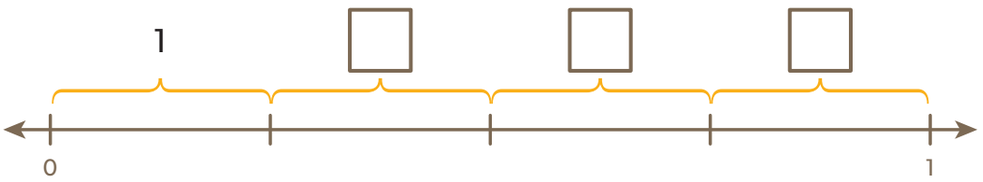
DISCUSS

Sophia drew this number line. She says each part of the number line represents one fourth. What can you tell Sophia about her work?

PRACTICE

Answer the question about the number line.

1



How many equal parts? __4__

The whole number line is _____ fourths.

Each part is _____ fourth of the whole.

Draw marks to separate the number line into thirds. Then write the answers.

2

How many equal parts? _____

The whole number line is equal to _____ thirds.

Each part is _____ third of the whole.

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READY TO GO Understanding Unit Fractions

A **unit fraction** names one equal part of a whole.

The **denominator** tells the number of equal parts. It is the bottom number of the fraction.

The **numerator** tells the number of parts you are counting. It is the top number of the fraction.

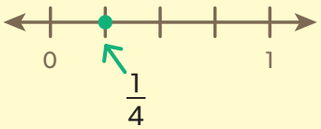
The dot on the number line shows a fraction.

The number line is separated into 4 equal parts. The denominator is 4.

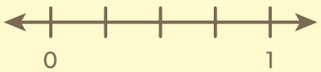
I see! I counted 1 part of the number line. The numerator is 1. So the fraction is $\frac{1}{4}$.

Words to Know

unit fraction
names one equal part of a whole

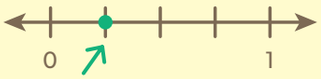


denominator
the total number of equal parts



4 equal parts

numerator
the number of parts being counted



1 part counted

DISCUSS What does the fraction $\frac{1}{2}$ mean?

LESSON LINK

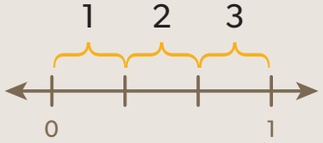
PLUG IN

Shapes can be broken into equal parts.

3 equal parts

POWER UP

A number line can be divided into equal parts.



3 thirds

GO!

I get it! I can model unit fractions with shapes or number lines.

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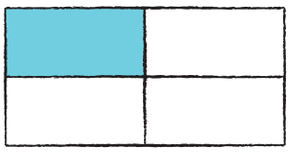
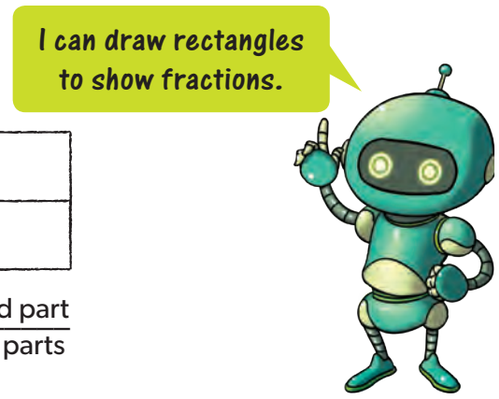
WORK TOGETHER

Use rectangles to show fractions.

- This rectangle shows a fraction.
- There are 4 equal parts. 1 part is shaded.
- So the fraction is $\frac{1}{4}$.



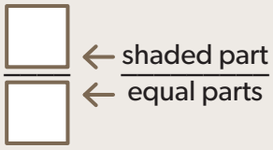
$\frac{1}{4}$ ← shaded part
$\frac{1}{4}$ ← equal parts



A Model the fraction $\frac{1}{6}$.

DO

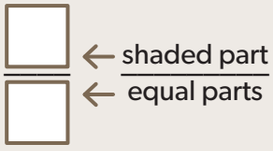
1. Draw a rectangle.
2. Divide the rectangle into 6 equal parts.
3. Shade 1 of the parts.
4. Write the unit fraction.



B Model the fraction $\frac{1}{3}$.

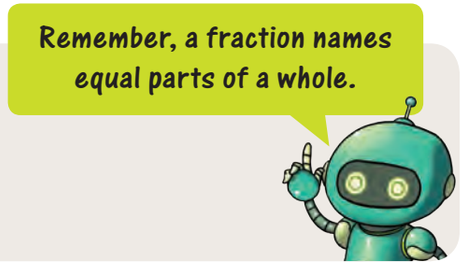
DO

1. Draw a rectangle.
2. Divide the rectangle into 3 equal parts.
3. Shade 1 of the parts.
4. Write the unit fraction.



DISCUSS

William wants to draw a rectangle to model the fraction $\frac{1}{8}$. He says the 8 parts of his rectangle do not need to be the same size. Is William correct? Explain.



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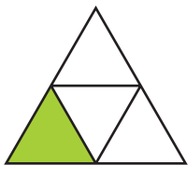
PRACTICE

Write the fraction for the shaded part of each shape.

1



$\frac{\square}{4}$ ← shaded part / ← equal parts

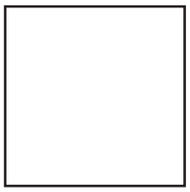
2

$\frac{\square}{\square}$

REMEMBER
The numerator is the number of parts you are counting.

Model each fraction.

3 $\frac{1}{3}$



4 $\frac{1}{8}$

HINT
The denominator is the total number of equal parts.

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Write the fraction.

5

$\frac{1}{\square}$ ← part counted
← equal parts

REMEMBER
Count to find the number of equal parts.

6

$\frac{\square}{\square}$

Write the fraction.

7 Tyler divides a circle into 3 equal parts. He shades 1 part. What fraction of the circle does Tyler shade?

8 Mavis cuts an apple into 4 equal slices. She eats 1 slice. What fraction of the apple does Mavis eat?

$\frac{\square}{\square}$

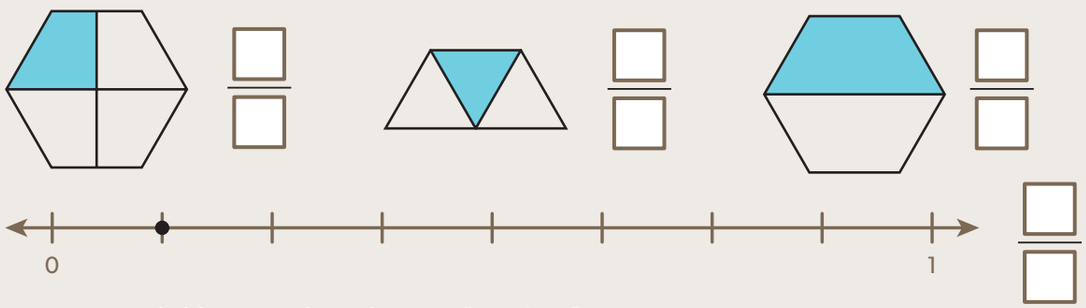
$\frac{\square}{\square}$

I'm going to make a model by drawing a shape or a number line.

DISCUSS

Model with Mathematics

Kaylee found fractions for some models. Find the missing fractions.



How can a model be used to show a fraction?

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PROBLEM SOLVING

PIZZA FRACTIONS

READ

Mr. Hill makes a pizza. He cuts the pizza into 8 equal slices. 1 slice has pepperoni. What fraction of the pizza has pepperoni?

PLAN

- What is the problem asking you to find?

  You need to find the fraction of the pizza that has _____.

- What do you need to know to solve the problem?

  How many equal slices? _____

  How many slices have pepperoni? _____

- How can you show the fraction?

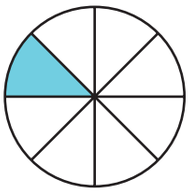
  You can use a fraction model or a number line.

SOLVE

Make a model. Write the fraction.

Draw a circle with _____ equal parts.

Shade _____ part.



$\frac{\square}{\square}$

_____ shaded part _____ equal parts

CHECK

Model the fraction another way. Use a number line.

$\frac{\square}{\square}$

_____ part counted _____ equal parts

$\frac{\square}{\square}$ of the pizza has pepperoni.

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PRACTICE

Use the problem-solving steps to help you.

I remember! I need to find equal parts.

1 Chloe cuts a loaf of bread into 8 equal slices. She gives 1 slice to her friend. What fraction of the bread does Chloe give to her friend?

CHECKLIST
- ☐ READ
- ☐ PLAN
- ☐ SOLVE
- ☐ CHECK

2 A graham cracker has 6 equal pieces. Matthew eats 1 piece. What fraction of the graham cracker does he eat?

CHECKLIST
- ☐ READ
- ☐ PLAN
- ☐ SOLVE
- ☐ CHECK

3 Kuri divides her paper into 4 equal sections. Then she makes 1 section red. What fraction of the paper is colored red?

CHECKLIST
- ☐ READ
- ☐ PLAN
- ☐ SOLVE
- ☐ CHECK

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