



11/1/21



Before we start this lesson, you are going to need to get some strips of paper that are equal in length.

11/1/21



Take a strip of paper and fold it into 4 equal parts, shading in 1 part.

The shaded part is your piece.

What fraction do you have?

Think about the numerator and denominator.

**Numerator?**

**Denominator?**



1

2

3

4

Numerator?

Denominator?

4



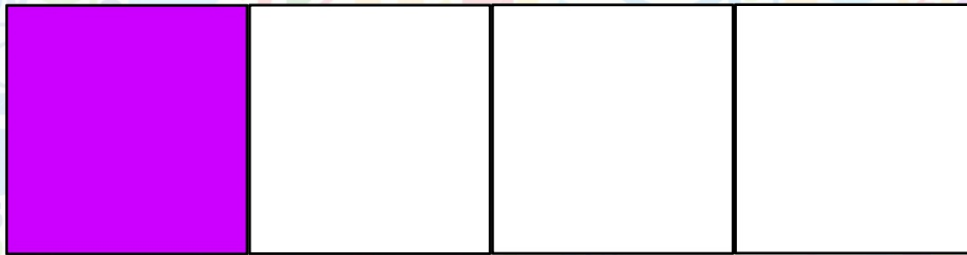
A large rectangular area with a colorful background of numbers and mathematical symbols. Inside this area, there is a horizontal row of four boxes. The first box is purple and contains the number 1. The other three boxes are white and empty. Below this row, the word "Numerator" is written in purple, and the word "Denominator" is written in red. To the right of "Numerator" is a large purple number 1, and to the right of "Denominator" is a large red number 4. A horizontal line is drawn between the 1 and the 4, representing a fraction.

1			
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**Numerator** 1

**Denominator** 4

We call this one forth or one quarter.



Numerator 1

1

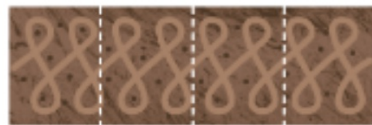
Denominator

4

—

# Finding Equivalent Fractions

## In Focus



This is my share.  
I get 1 part out of 4 parts.

Is it possible to get more parts but still the same amount?

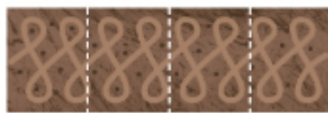
What is meant by this problem?

How can we have more parts but still use the same strip of paper?



## Finding Equivalent Fractions

### In Focus



This is my share.  
I get 1 part out of 4 parts.

Is it possible to get more parts but still the same amount?


Is there something we can do to increase the number of parts here?

Could we fold the paper more times?

Is it possible to turn the 4 parts into 8 parts?

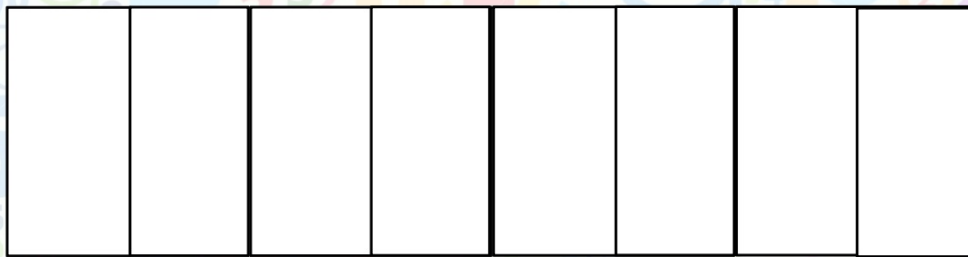
Try to make 8 equal parts.

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A large white rectangle is centered on the page, divided into eight equal vertical sections by thin black lines. The background of the entire page is a colorful, dense pattern of various numbers and mathematical symbols in different colors and sizes.

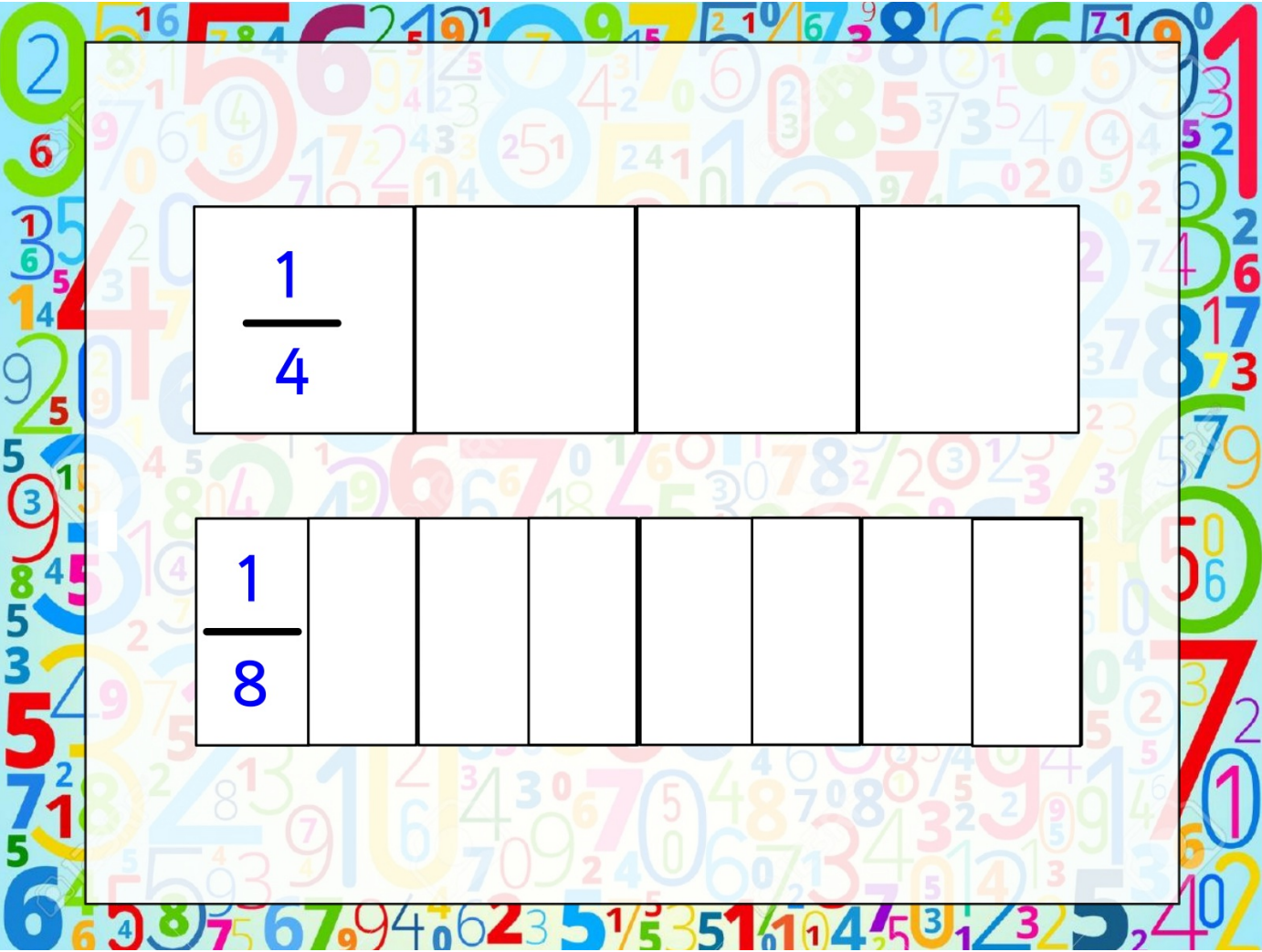
Now that we have 8 equal parts, what should we call each part?





We call each part an eighth.

$$\frac{1}{8}$$



$\frac{1}{4}$			
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$\frac{1}{8}$							
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Compare the two strips of paper.

Compare each part and compare the whole.  
What do you notice?





The whole has remained the same but the number of parts has changed.

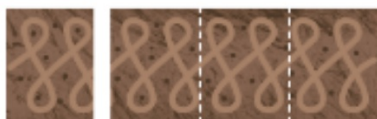


## Let's Learn

1



I get 1 part.  
Four of these make 1.



This is 1 fourth or 1 quarter.



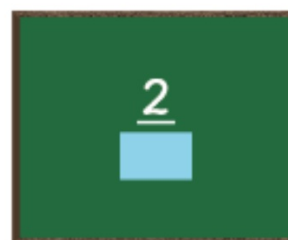
2



This one part can be cut into 2 equal parts.



Eight of these make 1.  
What is the name of each?



You can see that  $\frac{1}{4}$  is the same as  $\frac{2}{8}$

We call this an **equivalent fraction**.



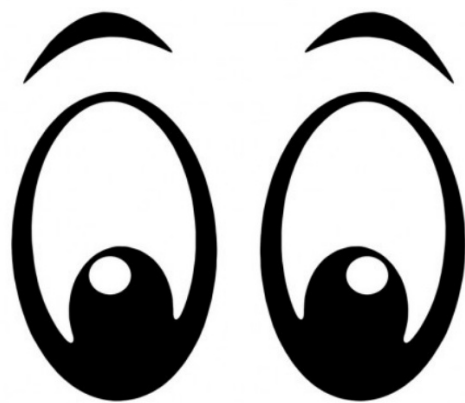


Can you explore, using your strips of paper, other equivalent fractions to one quarter.

$$\frac{1}{4} = \frac{\quad}{\quad}$$

Let's explore!

Watch me!

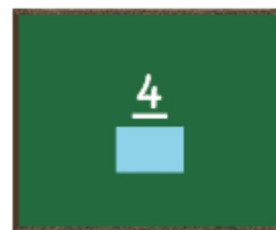


Watch video clip "Explanation 1"

3



This one part can be cut into 4 equal parts.

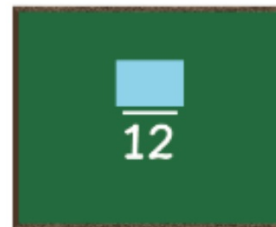
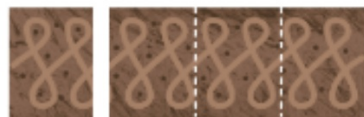


of these make 1.  
What is the name of each?

4



Try to get 12 equal parts from 1.

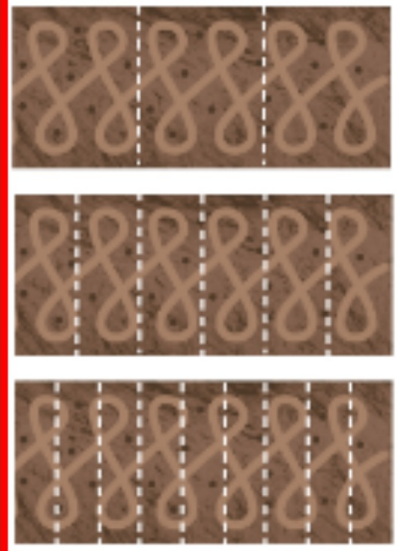
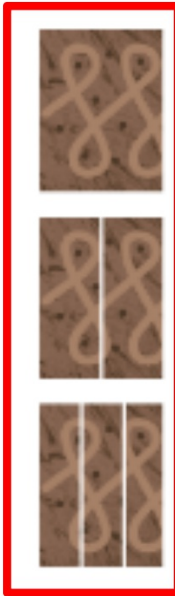


This one piece is cut into  equal parts to get twelfths.



5

What can you say about  $\frac{1}{4}$ ,  $\frac{2}{8}$  and  $\frac{3}{12}$ ?



1 fourth



2 eighths



3 twelfths

Split each section into the correct parts to find the equivalent fractions.

Find the missing numbers.

1

1	
$\frac{1}{2}$	

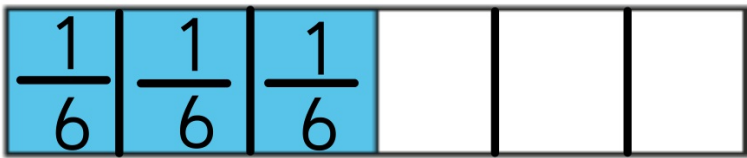
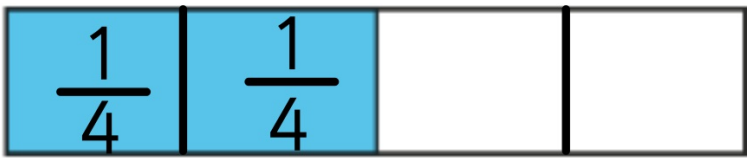
$\frac{1}{2} = \frac{\square}{4}$

$\frac{1}{2} = \frac{\square}{6}$

Explore this. What will you find out?

# Explanation

1

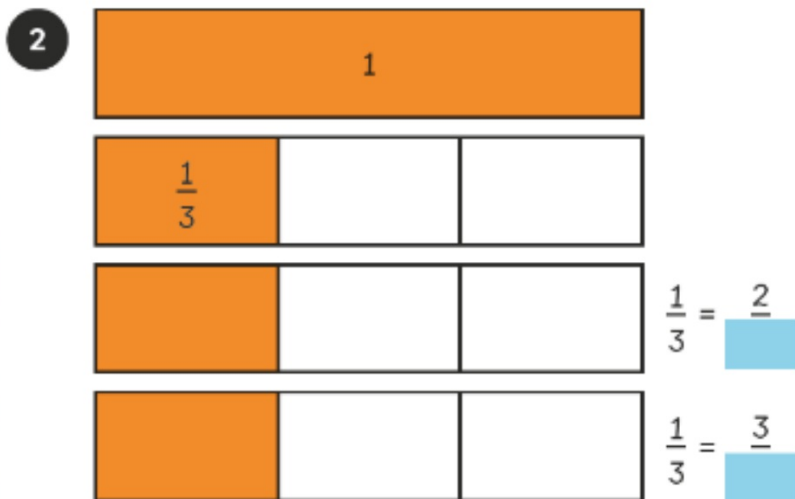


$$\frac{1}{2} = \frac{2}{4}$$

$$\frac{1}{2} = \frac{3}{6}$$

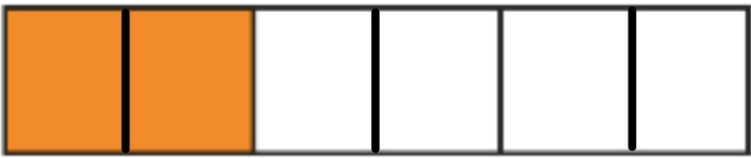


Split each section into the correct parts to find the equivalent fractions.



Explore this. What will you find out?

2



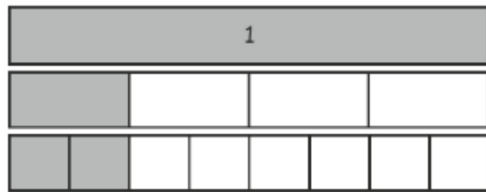
$$\frac{1}{3} = \frac{2}{6}$$

$$\frac{1}{3} = \frac{3}{9}$$

### Finding Equivalent Fractions

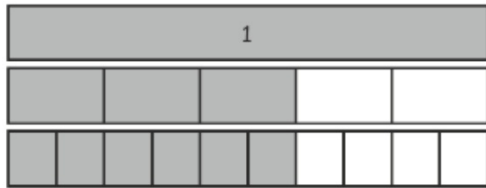
Fill in the blanks.

(a)



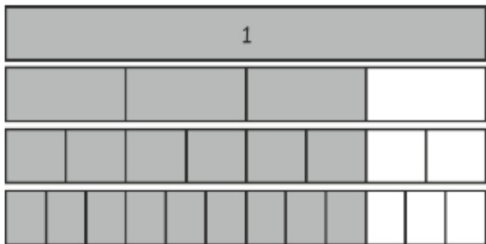
$$\frac{1}{4} = \frac{\boxed{-}}{8}$$

(b)



$$\frac{3}{5} = \frac{\boxed{-}}{10}$$

(c)



$$\frac{3}{4} = \frac{\boxed{-}}{8} = \frac{\boxed{-}}{12}$$

Complete  
workshee



## Going Deeper

Fancy a challenge? Can you find additional equivalent fractions for each question?

(a)

1							

$$\frac{1}{4} = \frac{\boxed{\quad}}{8}$$

Remember- each part must be EQUAL