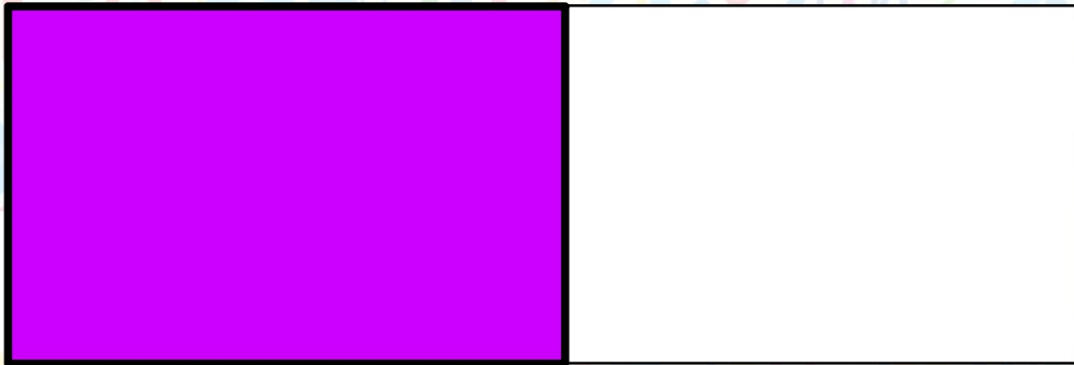




14/1/21

Before we start this lesson, you are going to need to get some strips of paper again and some crayons.

Fold your paper in half.



Shade  $\frac{1}{2}$

### In Focus

What are the equivalent fractions of  $\frac{1}{2}$ ?  
Help Charles see a pattern.



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

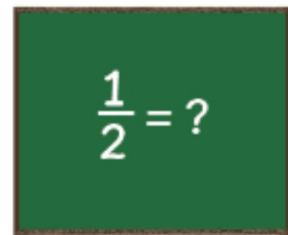


Can you help Charles solve this problem?

You might want to try cutting or folding your strips of paper to find the fractions equivalent to  $\frac{1}{2}$

### In Focus

What are the equivalent fractions of  $\frac{1}{2}$ ?  
Help Charles see a pattern.



As you fold your paper and find the fractions equivalent to one half, start recording them down. Remember- write how many parts your paper has been split up into and then how many pieces are shaded.

Do you notice a pattern?

I can see a pattern  
that involves  
multiplication.

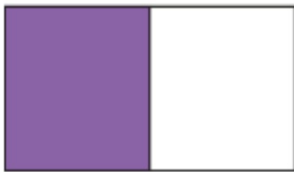


What do they mean by this?

Are **you** able to use this idea to create  
other equivalent fractions?

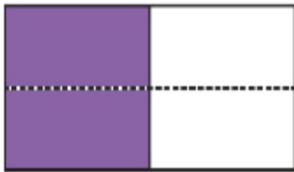
### Let's Learn

1



This is  $\frac{1}{2}$ .

When the shaded part becomes 2 equal parts,

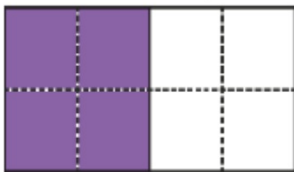


each part is a fourth or a quarter.

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

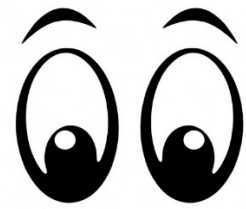
2

When the shaded part becomes 4 equal parts,



each part is an eighth.

$$\frac{1}{2} = \frac{4}{8}$$



Watch video  
"Explanation"

3 When the shaded part becomes 3 equal parts,



each part is a sixth.

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

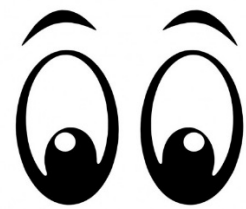
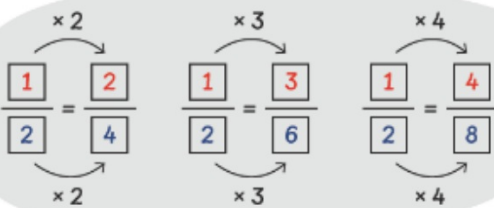
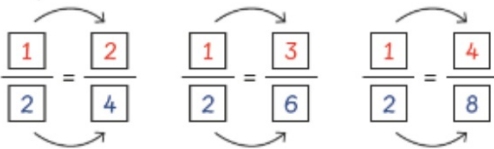
4

$$\frac{1}{2} = \frac{2}{4}$$
$$\frac{1}{2} = \frac{3}{6}$$
$$\frac{1}{2} = \frac{4}{8}$$

What do you notice?



What do you notice about numerators and denominators of equivalent fractions?



Watch video  
"Explanation"

5

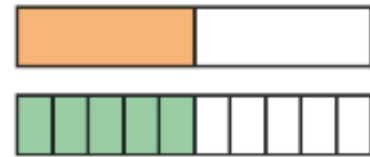
$$\frac{\boxed{1}}{\boxed{2}} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$

$\times 5$

$\times 5$



$\frac{1}{2} = \frac{5}{10}$   
Is this correct?



## Explore this.

Explain how you know if this is correct or not. Use your knowledge on multiplication to help you.



## Guided Practice

1 Find the missing numerators and denominators.

(a) 

--	--	--	--	--

--	--	--	--	--	--	--	--

$$\frac{1}{5} = \frac{\square}{10}$$

(b) 

--	--	--	--

--	--	--	--	--	--

$$\frac{1}{4} = \frac{\square}{8}$$

$$\frac{1}{4} = \frac{3}{\square}$$

First, find out what you are multiplying by.  
Whatever you do to the numerator you do  
to the denominator.

You will multiply by the same number.

2 Amira finds equal fractions this way.

Use Amira's method to find the missing numerators and denominators.

$$\begin{array}{ccc} & \times 2 & \\ & \curvearrowright & \\ \textcircled{1} & & \textcircled{2} \\ \hline \textcircled{3} & = & \textcircled{6} \\ & \curvearrowleft & \\ & \times 2 & \end{array}$$

(a)  $\frac{1}{5} = \frac{\square}{10}$

(b)  $\frac{1}{4} = \frac{\square}{8}$

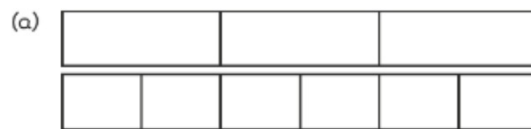
(c)  $\frac{1}{4} = \frac{3}{\square}$

(d)  $\frac{1}{6} = \frac{2}{\square}$

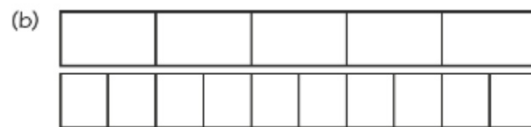
Whatever  
the numerator  
to the denominator  
You will multiply  
the same number

### Finding Equivalent Fractions

- 1 Find the missing numerators.  
Shade the bars to find the answers.



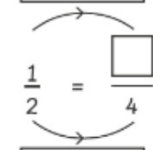
$$\frac{1}{3} = \frac{\square}{6}$$



$$\frac{1}{5} = \frac{\square}{10}$$

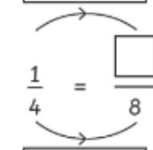
- 2 Fill in the blanks.

(a)  $\times \frac{\square}{2} = \frac{\square}{4}$



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

(b)  $\times \frac{\square}{4} = \frac{\square}{8}$



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

(c)  $\frac{1}{3} = \frac{\square}{9}$

(d)  $\frac{1}{2} = \frac{\square}{8}$

Complete  
workshee

## Going Deeper

See if you can find some additional equivalent fractions for each question.

(a)


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

(a)

$$\begin{array}{c} \times \boxed{\phantom{00}} \\ \frac{1}{2} = \frac{\boxed{\phantom{00}}}{4} \\ \times \boxed{\phantom{00}} \end{array}$$

(c)

$$\frac{1}{3} = \frac{\boxed{\phantom{00}}}{9}$$