Arithmetic

Before you begin, practise your times tables on Time Tables Rockstars for 20 minutes.

Finding Equivalent Fractions

Lesson 7

In Focus

Sam thinks that $\frac{1}{3}$ can be written in other ways.

Is Sam correct?

Let's Learn

Fold a piece of paper into 3 equal parts.
Shade 1 part.

1 part out of 3 equal parts is shaded.

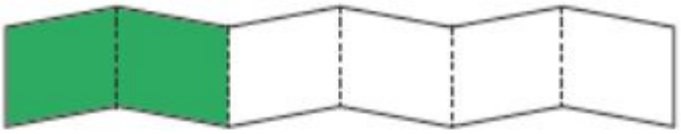
$\frac{1}{3}$ of the paper is shaded.

$\frac{1}{3}$ ← numerator
$\frac{1}{3}$ ← denominator

In $\frac{1}{3}$, 1 is the numerator and 3 is the denominator.

Are there other ways to write $\frac{1}{3}$?

Fold the paper again to get 6 equal parts.



2 parts out of 6 equal parts are shaded now.

$\frac{2}{6}$ of the paper is shaded.

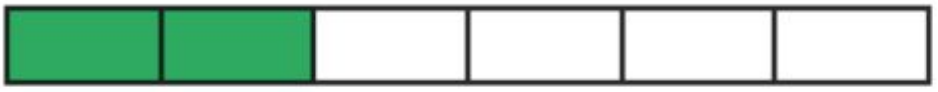
How many parts are shaded?
What is the name of each part?

Fold the paper to get 12 equal parts.

The fractions $\frac{1}{3}$, $\frac{2}{6}$ and $\frac{4}{12}$ have different numerators and denominators.
But they are equal.

$\frac{1}{3}$

$\frac{2}{6}$



$\frac{4}{12}$

$$\frac{1}{3} = \frac{2}{6} = \frac{4}{12}$$

$\frac{1}{3}$, $\frac{2}{6}$ and $\frac{4}{12}$ are equivalent fractions.
They are equal.

What are other equivalent fractions of $\frac{1}{3}$?
Use  to help you.

Guided Practice

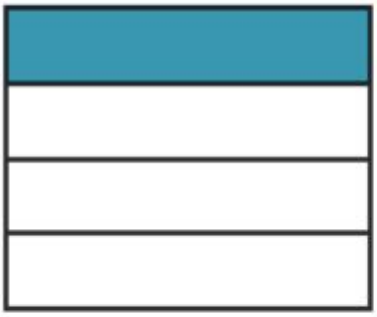
1

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

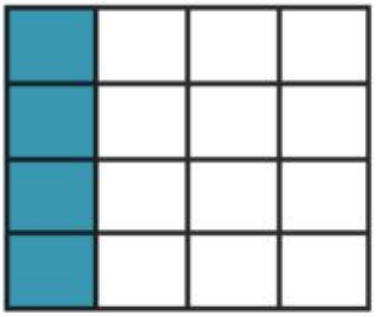
Look at the diagram.
Find the missing numerators.

(a) $1 = \frac{4}{4}$ (b) $\frac{1}{2} = \frac{4}{8}$ (c) $\frac{3}{4} = \frac{6}{8}$

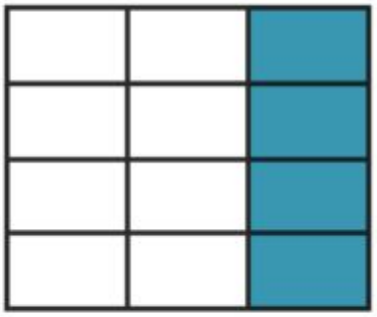
2 The 3 figures are cut into equal parts.
What fraction of each figure is shaded?



$\frac{1}{4}$



$\frac{4}{16}$



$\frac{4}{12}$

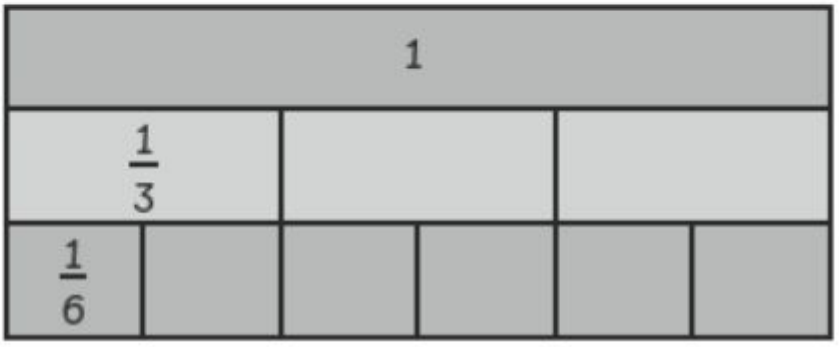
Are the fractions equivalent?
Why or why not? $\frac{4}{16}$ is equivalent to $\frac{1}{4}$

Worksheet 7

Finding Equivalent Fractions

Look at the diagram and fill in the blanks.

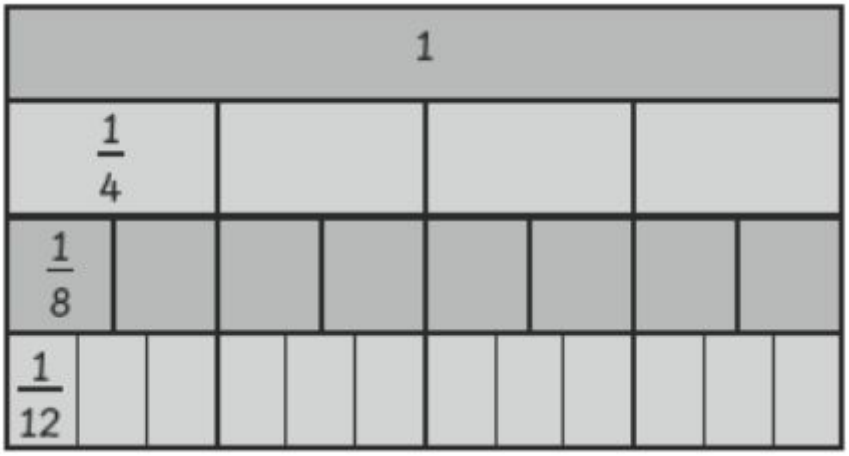
(a)



i) $1 = \frac{?}{3}$

ii) $\frac{2}{3} = \frac{?}{6}$

(b)



i) $1 = \frac{?}{4}$

ii) $\frac{2}{4} = \frac{?}{8}$

ii) $\frac{2}{4} = \frac{?}{12}$