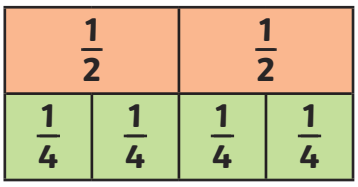
Equivalent Fraction Families

To identify equivalent fraction families.

1) Cut out the fraction cards to make your own equivalent fraction kit and explore equivalent fraction families.

2) Use your cards to explore these fractions and display your fraction family for a partner to check. **E.g.**

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



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

3) What other equivalent fraction families can you find?

1 Whole $\frac{1}{1}$

$\frac{1}{2}$ $\frac{1}{2}$

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$

$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$

$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$

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

$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$

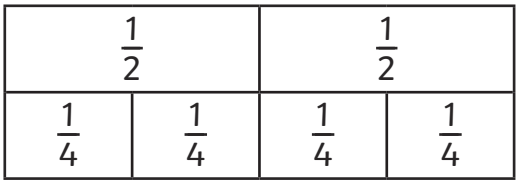
$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$

Equivalent Fraction Families

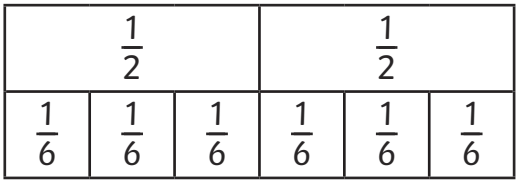
To identify equivalent fraction families.

1) Colour in the bar models to find the equivalent fractions.

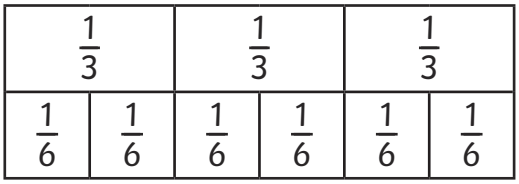
a) $\frac{1}{2} = \frac{\square}{4}$



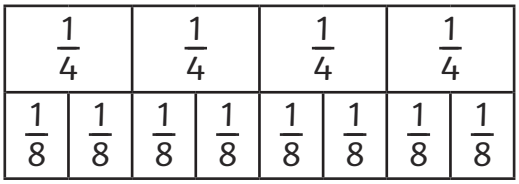
b) $\frac{1}{2} = \frac{\square}{6}$



c) $\frac{2}{3} = \frac{\square}{6}$



d) $\frac{3}{4} = \frac{\square}{8}$

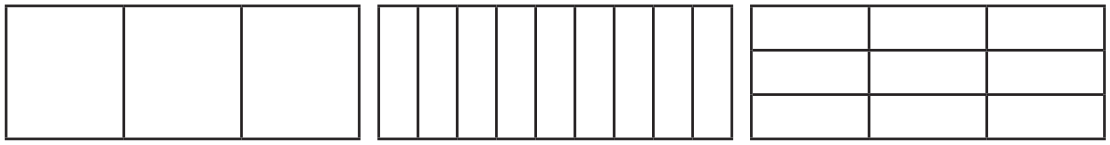


2) Colour in these bar models in different ways to show the equivalent fraction families.

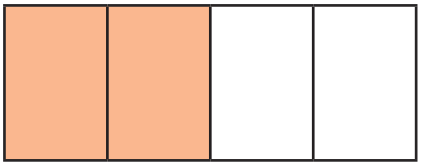
a) $\frac{1}{2} = \frac{\square}{4}$

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

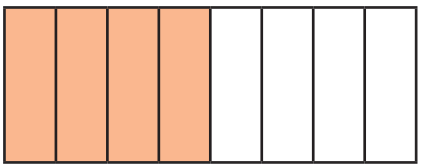
c) $\frac{2}{3} = \frac{\square}{9}$



3) Which fraction is the odd one out and why?

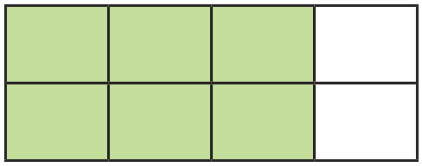
a) 

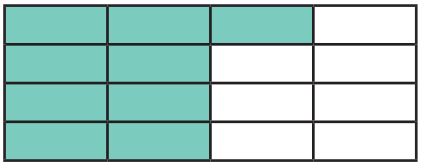
b) $\frac{1}{2}$

c) 

d) $\frac{2}{5}$

4) Sara shades a bar model and shows it to Oli. Oli shades a second bar model and says they are equivalent. Is Oli correct?





Equivalent Fraction Families

To identify equivalent fraction families.

1) a) Label the missing fractions on the fraction wall.

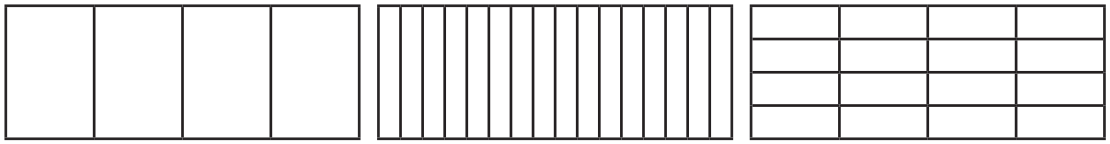
1 whole $\frac{1}{1}$					
—	—				
—	—	—			
$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$		
—	—	—	—	—	
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

b) Use the fraction wall to complete the equivalent fraction families:

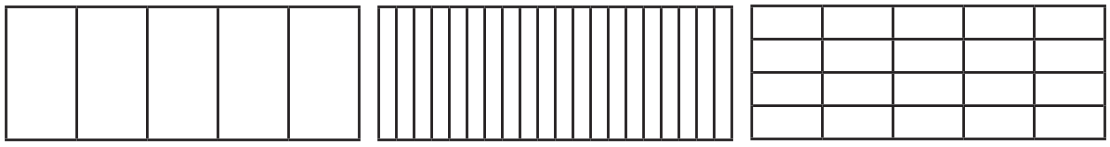
$\frac{2}{4} = \frac{\square}{6}$ $\quad \frac{2}{3} = \frac{\square}{6}$ $\quad \frac{1}{2} = \frac{\square}{6}$

2) Colour in these bar models in different ways to show the equivalent fraction families.

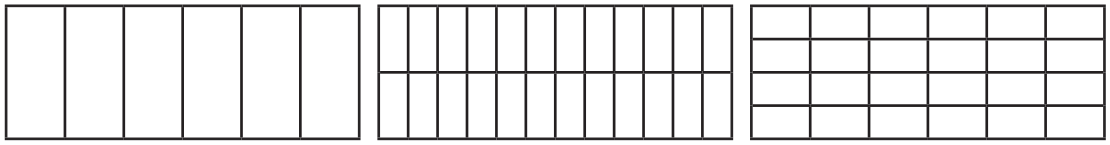
a) $\frac{3}{4} = \frac{\square}{16}$



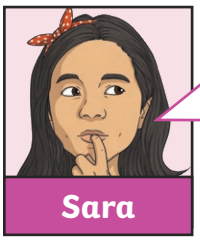
b) $\frac{3}{5} = \frac{\square}{20}$



c) $\frac{2}{6} = \frac{\square}{24}$

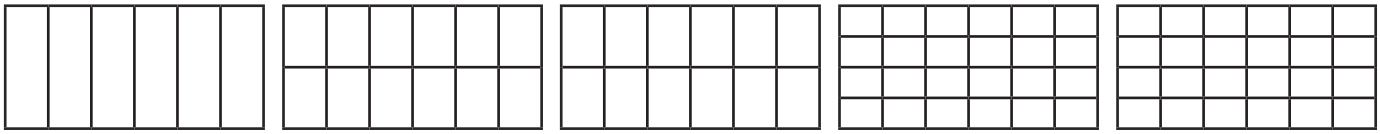


3) Do you agree or disagree with Sara?



Two of the fraction cards are equivalent to $\frac{1}{6}$.

$\frac{3}{12}$ $\frac{2}{12}$ $\frac{4}{24}$ $\frac{6}{24}$



4) a) Use the number cards below to make 3 fractions which are equivalent to $\frac{2}{4}$.

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

12 8 1 6 4 2

b) Can you think of 3 more fractions which would be equivalent?

Answers

1) Cut out the fraction cards to make your own equivalent fraction kit and explore equivalent fraction families.

The children should cut out the set of fraction cards. This equivalent fraction kit is useful for the work in this unit and exploring equivalent fractions in general.

2) Use your cards to explore these fractions and display your fraction family for a partner to check.

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

3) What other equivalent fraction families can you find?

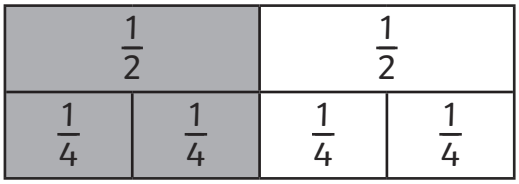
The children should use their fraction kits to explore further equivalent fractions. They can display fractions such as:

1 whole = two halves, $\frac{1}{2} = \frac{4}{8}$, $\frac{2}{5} = \frac{4}{10}$, 1 whole = $\frac{5}{5}$ etc.

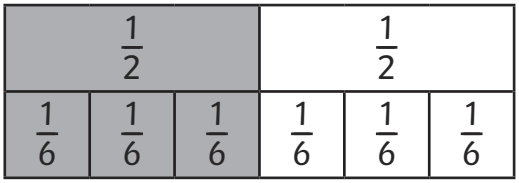
Answers

1) Colour in the bar models to find the equivalent fractions.

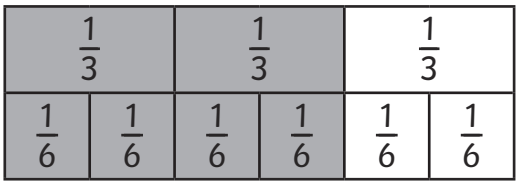
a) $\frac{1}{2} = \frac{\boxed{2}}{4}$



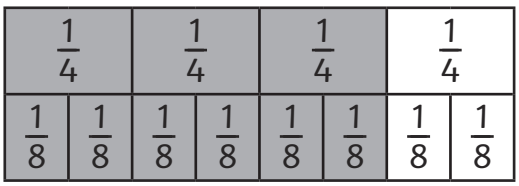
b) $\frac{1}{2} = \frac{\boxed{3}}{6}$



c) $\frac{2}{3} = \frac{\boxed{4}}{6}$



d) $\frac{3}{4} = \frac{\boxed{6}}{8}$

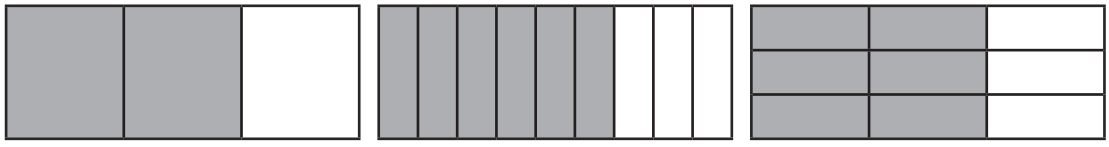


2) Colour in these bar models in different ways to show the equivalent fraction families.

a) $\frac{1}{2} = \frac{\boxed{2}}{4}$

b) $\frac{1}{4} = \frac{\boxed{2}}{8}$

c) $\frac{2}{3} = \frac{\boxed{6}}{9}$



3) Which fraction is the odd one out and why?

a) 

b) $\frac{1}{2}$

c) 

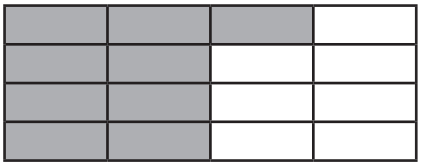
d) $\frac{2}{5}$

$\frac{2}{5}$ is the odd one out. The other three fractions are part of the same equivalent fraction family.

4) Sara shades a bar model and shows it to Oli. Oli shades a second bar model and says they are equivalent. Is Oli correct?

Sara

Oli



Oli is not correct. Sara's bar model shows $\frac{6}{8}$, so the equivalent fraction would be $\frac{12}{16}$. Oli has only shaded $\frac{9}{16}$.

Answers

1) a) Label the missing fractions on the fraction wall.

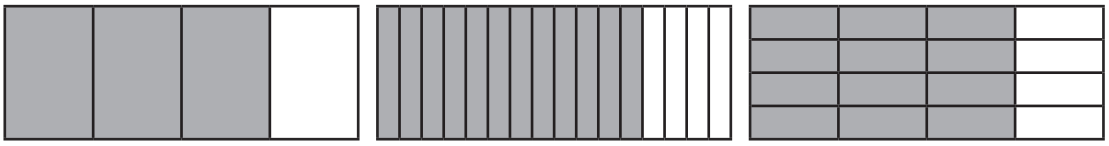
1 whole $\frac{1}{1}$					
$\frac{1}{2}$					**$\frac{1}{2}$**
$\frac{1}{3}$				**$\frac{1}{3}$**	**$\frac{1}{3}$**
$\frac{1}{4}$			$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
$\frac{1}{5}$		**$\frac{1}{5}$**	**$\frac{1}{5}$**	**$\frac{1}{5}$**	**$\frac{1}{5}$**
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

b) Use the fraction wall to complete the equivalent fraction families:

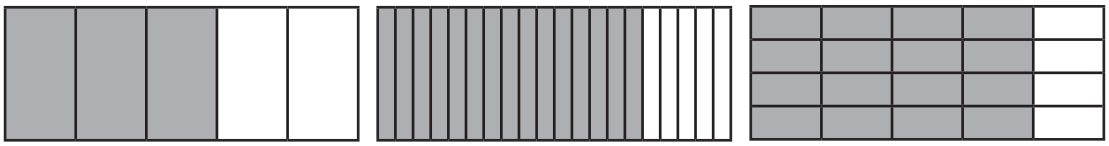
$\frac{2}{4} = \frac{\boxed{\mathbf{3}}}{6}$ $\quad \frac{2}{3} = \frac{\boxed{\mathbf{4}}}{6}$ $\quad \frac{1}{2} = \frac{\boxed{\mathbf{3}}}{6}$

2) Colour in these bar models in different ways to show the equivalent fraction families.

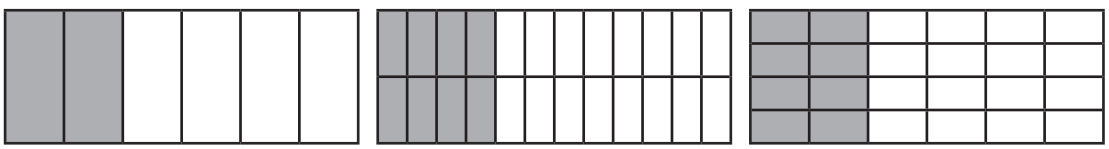
a) $\frac{3}{4} = \frac{\boxed{\mathbf{12}}}{16}$



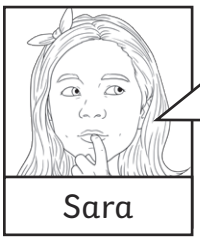
b) $\frac{3}{5} = \frac{\boxed{\mathbf{12}}}{20}$



c) $\frac{2}{6} = \frac{\boxed{\mathbf{8}}}{24}$



3) Do you agree or disagree with Sara?

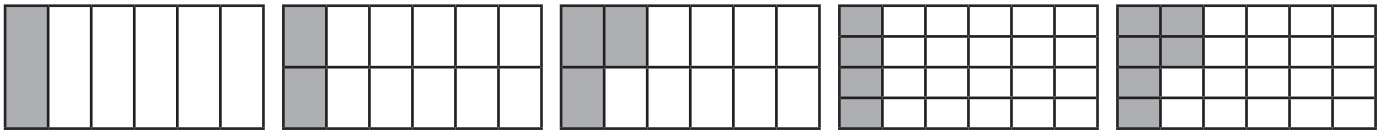


Sara

Two of the fraction cards are equivalent to $\frac{1}{6}$.

$\frac{3}{12}$ $\frac{2}{12}$ $\frac{4}{24}$ $\frac{6}{24}$

Sara is correct. Both $\frac{2}{12}$ and $\frac{4}{24}$ are equivalent to $\frac{1}{6}$. See bar models below.



$\frac{1}{6}$ **$\frac{2}{12}$** ✓ **$\frac{3}{12}$** ✗ **$\frac{4}{24}$** ✓ **$\frac{6}{24}$** ✗

4) a) Use the number cards below to make 3 fractions which are equivalent to $\frac{2}{4}$.

1 / **2** **4** / **8** **6** / **12**

12 8 1 6 4 2

b) Can you think of 3 more fractions which would be equivalent?

The children could choose a range of fractions for example: $\frac{10}{20}$, $\frac{12}{24}$.