Equivalent fraction families



1 Shade the bar models to represent the equivalent fractions.



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

1	1	1	1	1	1
6	6	6	6	6	6

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

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

1	1	1	1
$\frac{1}{\sqrt{1}}$	<u> </u>		1 1
4	4	'+	'1

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

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

1	1	1	1	1	1	1	1
8	8	8	8	8	8	8	8

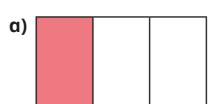
$$\frac{1}{2} = \frac{4}{8}$$

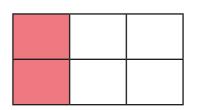
 $\frac{1}{2} \qquad \frac{1}{2}$

$$\frac{1}{2} = \frac{5}{10}$$

2 Shade the diagrams to help you complete the equivalent fractions.

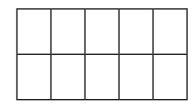
The first one has been done for you.



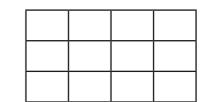


$$\frac{1}{3} = \frac{2}{6}$$









Use the fraction wall to complete the equivalent fractions.

1/2				1/2			
1/4		- 4	<u>1</u> 1	$\frac{1}{4}$ $\frac{1}{4}$		<u>1</u> 4	
1 8	<u>1</u> 8	<u>1</u> 8	<u>1</u> 8	<u>1</u> 8	<u>1</u> 8	<u>1</u> 8	1/8

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

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

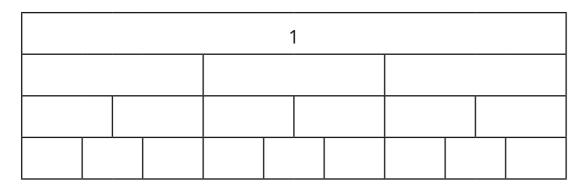
e)
$$\frac{ }{8} = \frac{3}{4}$$

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

d)
$$\frac{2}{9} = \frac{1}{4}$$

f)
$$\frac{2}{2} = \frac{4}{4} = \frac{8}{8}$$

a) Label the fractions on the fraction wall.



b) Use the fraction wall to complete the equivalent fractions.

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

$$\frac{3}{\boxed{}} = \frac{6}{\boxed{}} = \frac{9}{\boxed{}} = \frac{9}{\boxed{}}$$

a) Write the fractions in the correct place on the sorting diagram.

 $\begin{array}{c|c}
8 \\
\hline
24
\end{array} \qquad \begin{array}{c|c}
3 \\
\hline
12
\end{array}$

<u>5</u> 15 <u>6</u> 24 <u>4</u> 12

9 36

<u>3</u> 9 <u>4</u> 16

	equivalent to $\frac{1}{3}$	equivalent to $\frac{1}{4}$
odd denominator		
even denominator		

b) Why are parts of the table empty?

6 Are the statements always, sometimes or never true? Circle your answer.



a) Fractions equivalent to one half have even numerators.

always	sometimes	never

b) If a fraction is equivalent to one half, the denominator will be double the numerator.

always	sometimes	never





To find all the fractions equivalent to a given fraction, you just keep doubling the numerators and denominators.

Do you agree with Tiny? _____

Talk about it with a partner.



