Monday Maths

Equivalent fractions (1)

1 Shade the bar models to represent the equivalent fractions.

a)

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

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

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

b)

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

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

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

c)

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

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

$\frac{4}{5} = \frac{8}{10}$

d)

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

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

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

2 Use the fraction wall to complete the equivalent fractions.

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

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

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

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

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

d) $\frac{2}{8} = \frac{\square}{4}$

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

3 a) Label the fractions on the fraction wall.

1							

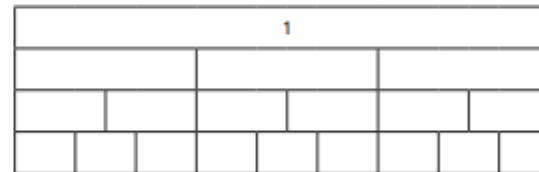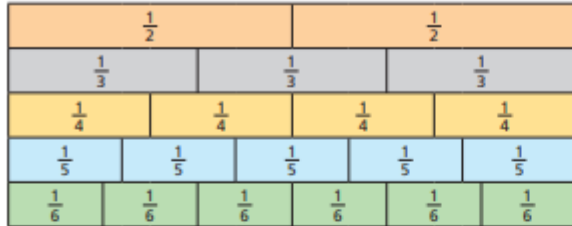b) Use the fraction wall to complete the equivalent fractions.

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

$\frac{\square}{3} = \frac{4}{\square} = \frac{6}{9}$

$\frac{3}{\square} = \frac{6}{\square} = \frac{9}{\square} = 1$

4 Here is a fraction wall.

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

Is each statement true or false? Tick your answers.

	True	False
a) $\frac{1}{2}$ is equivalent to $\frac{3}{6}$	☐	☐
b) $\frac{2}{3}$ is equivalent to $\frac{3}{4}$	☐	☐
c) $\frac{2}{4}$ is equivalent to $\frac{3}{6}$	☐	☐
d) $\frac{2}{3}$ is equivalent to $\frac{4}{5}$	☐	☐
e) $\frac{2}{3}$ is equivalent to $\frac{4}{6}$	☐	☐
f) $\frac{3}{5}$ is equivalent to $\frac{4}{6}$	☐	☐

Write your own equivalent fractions statements.
Ask a partner to say if they are true or false.

5 Are the statements always, sometimes or never true?
Circle your answer.
Draw a diagram to support your answer.

a) The greater the numerator, the greater the fraction.

always   sometimes   never

b) Fractions equivalent to one half have even numerators.

always   sometimes   never

c) If a fraction is equivalent to one half, the denominator will be double the numerator.
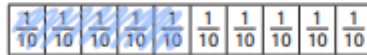
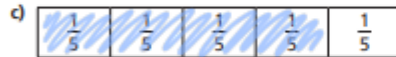always   sometimes   never

(Answers below)

Monday Maths

White Rose Maths

1 Shade the bar models to represent the equivalent fractions.

a)

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

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

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

b)

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

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

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

c)

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

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

$$\frac{4}{5} = \frac{8}{10}$$

d)

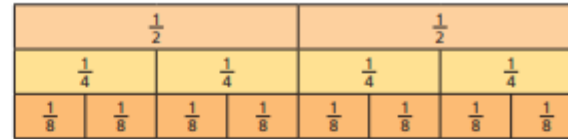| $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ |

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

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

2 Use the fraction wall to complete the equivalent fractions.

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

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

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

e) $\frac{6}{8} = \frac{3}{4}$

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

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

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

3 a) Label the fractions on the fraction wall.

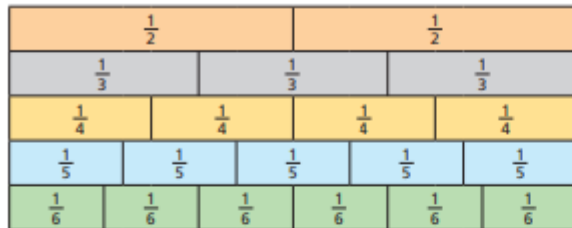| 1 | | | | | | | |
$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$			
$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$	
$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$

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

$$\frac{1}{3} = \frac{2}{6} = \frac{3}{9}$$

$$\frac{2}{3} = \frac{4}{6} = \frac{6}{9}$$

$$\frac{3}{3} = \frac{6}{6} = \frac{9}{9} = 1$$

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4 Here is a fraction wall.

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

Is each statement true or false? Tick your answers.

	True	False
a) $\frac{1}{2}$ is equivalent to $\frac{3}{6}$	✓	
b) $\frac{2}{3}$ is equivalent to $\frac{3}{4}$		✓
c) $\frac{2}{4}$ is equivalent to $\frac{3}{6}$	✓	
d) $\frac{2}{3}$ is equivalent to $\frac{4}{5}$		✓
e) $\frac{2}{3}$ is equivalent to $\frac{4}{6}$	✓	
f) $\frac{3}{5}$ is equivalent to $\frac{4}{6}$		✓

Write your own equivalent fractions statements.
Ask a partner to say if they are true or false.

5 Are the statements always, sometimes or never true?
Circle your answer.
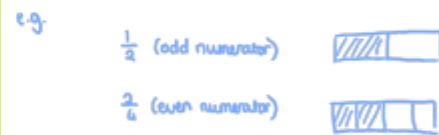Draw a diagram to support your answer.

a) The greater the numerator, the greater the fraction.

always   (sometimes)   never

e.g.

$\frac{4}{5} > \frac{1}{5}$ $\frac{1}{2} > \frac{2}{5}$

BUT

b) Fractions equivalent to one half have even numerators.

always   (sometimes)   never

e.g.

$\frac{1}{2}$ (odd numerator)

$\frac{2}{4}$ (even numerator)

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

(always)   sometimes   never

No matter how many parts it's split into, the number shaded (numerator) will be half the total parts (denominator)