Understand and use equivalent fractions

1 Use the fraction wall to complete the equivalent fractions.

1											
$\frac{1}{2}$						$\frac{1}{2}$					
$\frac{1}{3}$				$\frac{1}{3}$				$\frac{1}{3}$			
$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$		
$\frac{1}{5}$		$\frac{1}{5}$			$\frac{1}{5}$			$\frac{1}{5}$			$\frac{1}{5}$
$\frac{1}{6}$			$\frac{1}{6}$			$\frac{1}{6}$			$\frac{1}{6}$		
$\frac{1}{7}$											
$\frac{1}{8}$											
$\frac{1}{9}$											
$\frac{1}{10}$											

a) $\frac{1}{2} = \frac{5}{10}$ **c)** $\frac{2}{3} = \frac{6}{9}$ **e)** $\frac{8}{10} = \frac{4}{5}$

b) $\frac{1}{5} = \frac{2}{10}$ **d)** $\frac{3}{4} = \frac{6}{8}$

f) Write three fractions equivalent to $\frac{1}{2}$

e.g. $\frac{7}{14}$ $\frac{19}{38}$ $\frac{20}{40}$

g) What do you notice about the relationship between the numerator and the denominator when a fraction is equivalent to one half?

2 Write = or ≠ to show whether the fractions are equivalent or not.

a) $\frac{2}{5}$ (=) $\frac{4}{10}$

$\frac{2}{5}$ (≠) $\frac{5}{2}$

$\frac{2}{5}$ (≠) $\frac{4}{5}$

$\frac{2}{5}$ (≠) $\frac{20}{40}$

b) $\frac{4}{5}$ (≠) $\frac{4}{10}$

$\frac{4}{5}$ (=) $\frac{40}{50}$

$\frac{4}{5}$ (≠) $\frac{41}{51}$

$\frac{4}{5}$ (=) $\frac{44}{55}$

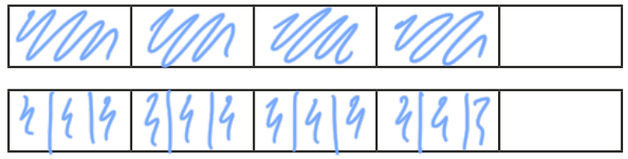
3 Complete the bar models to show equivalent fractions.

You may have to split the bars up yourself.

a) $\frac{3}{5} = \frac{6}{10}$

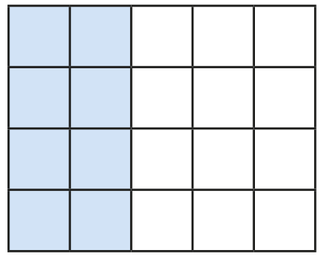
b) $\frac{1}{3} = \frac{3}{9}$

c) $\frac{4}{5} = \frac{12}{15}$



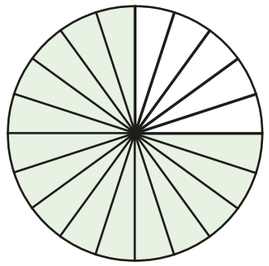
4 What equivalent fractions can you see in the diagrams?

a)



Various answers

b)



Various answers

Compare answers with a partner.

Did you get the same fractions?

5 All these fractions are equivalent.

Work out the missing numbers.

$\frac{3}{10}$ $\frac{6}{20}$ $\frac{9}{30}$ $\frac{15}{50}$ $\frac{21}{70}$ $\frac{30}{100}$

6 Write five fractions that are equivalent to $\frac{36}{48}$

e.g.

$\frac{3}{4}$ $\frac{30}{40}$ $\frac{21}{28}$ $\frac{33}{44}$ $\frac{99}{132}$

7 Complete the equivalent fractions.

a) $\frac{2}{3} = \frac{8}{12}$

b) $\frac{2}{9} = \frac{4}{18}$

c) $\frac{15}{40} = \frac{3}{8}$

d) $\frac{12}{24} = \frac{6}{12}$

e) $\frac{3}{4} = \frac{15}{20}$

f) $\frac{7}{3} = \frac{49}{21}$

g) $\frac{22}{55} = \frac{2}{5}$

h) $\frac{12}{30} = \frac{14}{35} = \frac{2}{5}$

i) $\frac{20}{8} = \frac{5}{2}$

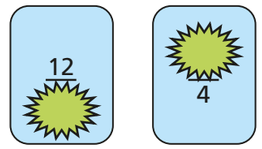
j) $\frac{32}{20} = \frac{8}{5}$

k) $\frac{9}{45} = \frac{1}{5}$

8 Here are two fraction cards.

What could the missing numbers be?

Give six possible answers.



e.g.

$\frac{12}{8} = \frac{6}{4}$ $\frac{12}{2} = \frac{24}{4}$

$\frac{12}{12} = \frac{4}{4}$ $\frac{12}{24} = \frac{2}{4}$

$\frac{12}{6} = \frac{8}{4}$ $\frac{12}{48} = \frac{1}{4}$