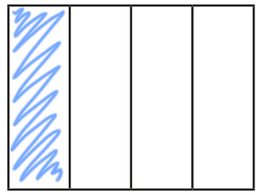
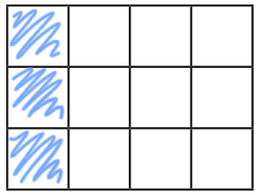
Equivalent fractions

1 Shade the shapes to show the equivalent fractions.

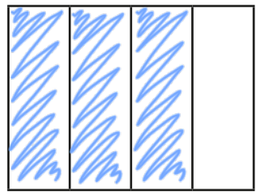
a)



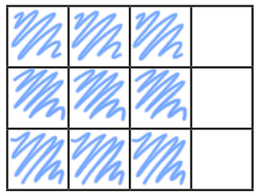
$\frac{1}{4} = \frac{3}{12}$



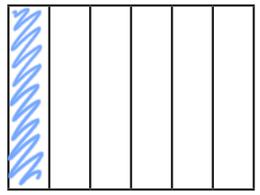
b)



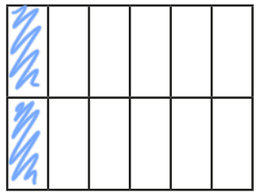
$\frac{3}{4} = \frac{9}{12}$



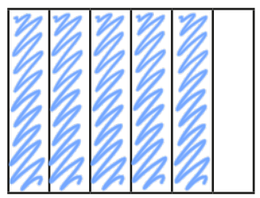
c)



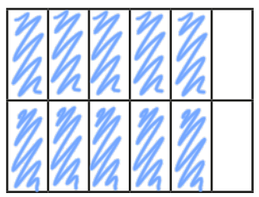
$\frac{1}{6} = \frac{2}{12}$



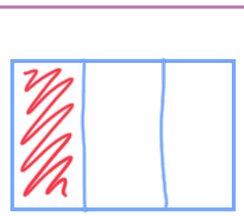
d)



$\frac{5}{6} = \frac{10}{12}$

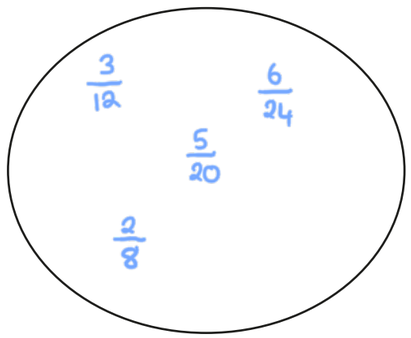


2 Draw two rectangles to show that $\frac{1}{3} = \frac{4}{12}$

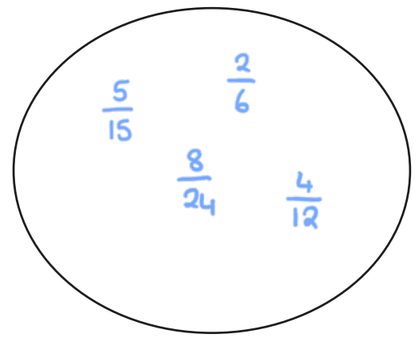


3 **a)** Sort the fractions into the groups.

Equivalent to $\frac{1}{4}$



Equivalent to $\frac{1}{3}$



$\frac{5}{15}$	$\frac{2}{6}$	$\frac{3}{12}$	$\frac{6}{24}$	$\frac{8}{24}$	$\frac{5}{20}$	$\frac{4}{12}$	$\frac{2}{8}$

b) Write one more fraction in each group.

4 Complete the equivalent fractions.

a) $\frac{1}{7} = \frac{2}{14}$

b) $\frac{5}{7} = \frac{10}{14}$

c) $\frac{7}{8} = \frac{14}{16}$

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

e) $\frac{3}{4} = \frac{12}{16}$

f) $\frac{3}{4} = \frac{9}{12}$

g) $\frac{2}{3} = \frac{10}{15}$

h) $\frac{2}{5} = \frac{10}{25}$

i) $\frac{2}{7} = \frac{10}{35}$

j) Describe the pattern in part g), h) and i) to a partner.

5 Find three ways to make the fractions equivalent.

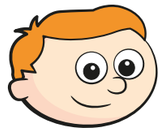
e.g.

a) $\frac{1}{2} = \frac{7}{14}$ $\quad \frac{1}{8} = \frac{7}{56}$ $\quad \frac{1}{100} = \frac{7}{700}$

b) $\frac{7}{7} = \frac{14}{14}$ $\quad \frac{7}{1} = \frac{14}{2}$ $\quad \frac{7}{10} = \frac{14}{20}$

c) $\frac{1}{7} = \frac{2}{14}$ $\quad \frac{5}{7} = \frac{10}{14}$ $\quad \frac{21}{7} = \frac{42}{14}$

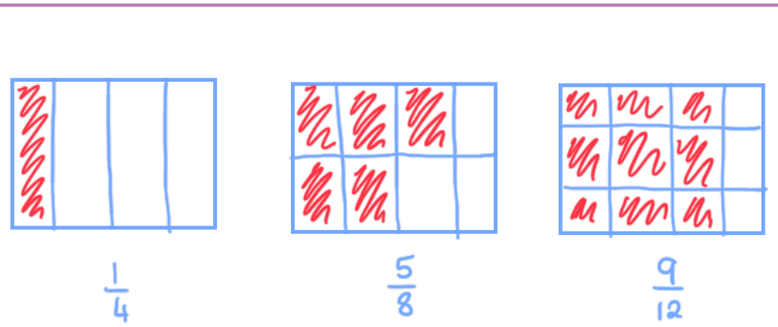
6 Ron is finding equivalent fractions to $\frac{1}{4}$



$\frac{1}{4}$ is equivalent to $\frac{5}{8}$ and $\frac{9}{12}$

Do you agree with Ron? No

Draw a diagram to support your answer.



Compare answers with a partner.

7 Here are some equivalent fractions.

Find the values of A, B and C.

$\frac{A}{9}$ $\quad \frac{3}{B}$ $\quad \frac{2}{18}$ $\quad \frac{C}{90}$

A = 1 $\quad$ B = 27 $\quad$ C = 10

8 Here are three fraction cards.

All the fractions are equivalent.

$\frac{3}{A}$ $\quad \frac{B}{14}$ $\quad \frac{12}{C}$

A + B = 13

Work out the value of C.

C = 24

or

C = 28

9 $\frac{1}{5} = \frac{3}{1 + \bullet}$

Find the value of $\bullet$

$\bullet$ = 14