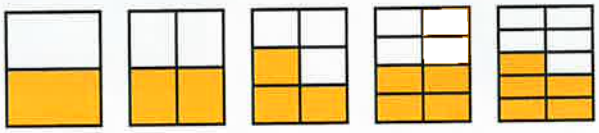
Equivalent fractions (3)

Use factors and multiples to recognise equivalent fractions and simplify fractions

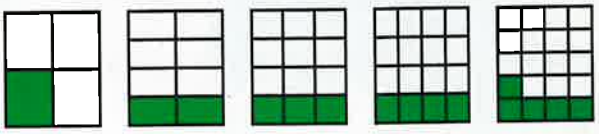
Challenge 1

1 Continue the equivalent fraction pattern.

a $\frac{1}{2} = \frac{\quad}{4} = \frac{\quad}{6} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$



b $\frac{1}{4} = \frac{\quad}{8} = \frac{\quad}{12} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$



2 Explain what an equivalent fraction is.

Challenge 2

1 Continue the equivalent fraction pattern.

a $\frac{1}{5} = \frac{\quad}{10} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

b $\frac{1}{6} = \frac{\quad}{12} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

c $\frac{1}{7} = \frac{\quad}{14} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

d $\frac{1}{8} = \frac{\quad}{16} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

2 Simplify these fractions.

a $\frac{9}{18}$ b $\frac{6}{24}$ c $\frac{7}{28}$ d $\frac{8}{40}$ e $\frac{9}{54}$ f $\frac{6}{18}$

g $\frac{8}{56}$ h $\frac{6}{60}$ i $\frac{4}{48}$ j $\frac{9}{45}$ k $\frac{7}{77}$ l $\frac{20}{70}$

Challenge 3

1 Continue the equivalent fraction pattern for these non-unit fractions.

a $\frac{2}{3} = \frac{6}{\quad} = \frac{\quad}{9} = \frac{\quad}{12} = \frac{\quad}{15} = \frac{\quad}{18}$

b $\frac{3}{5} = \frac{6}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

2 Simplify these fractions.

a $\frac{12}{60}$ b $\frac{10}{18}$ c $\frac{15}{25}$ d $\frac{36}{42}$ e $\frac{20}{50}$

f $\frac{32}{36}$ g $\frac{54}{90}$ h $\frac{44}{99}$ i $\frac{12}{21}$ j $\frac{14}{35}$

3 Explain why $\frac{12}{25}$ cannot be simplified?