

TARGET To use common multiples to find equivalent fractions and common factors to simplify fractions.

Examples A fraction can be changed to an equivalent fraction by:

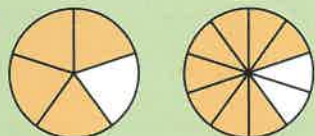
cancelling using
common factors $\frac{18}{30} = \frac{3}{5}$

multiplying using
common multiples. $\frac{2}{3} (\times 5) = \frac{10}{15}$

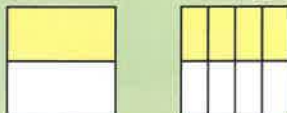
A

Write the equivalent fractions shown by the shaded area in each pair of diagrams.

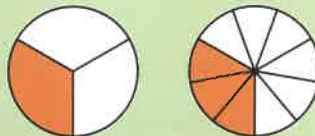
1



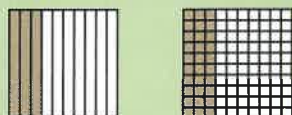
3



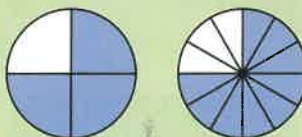
5



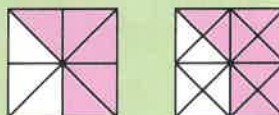
2



4



6



B

Continue these fraction chains for five further terms.

1 $\frac{1}{4} = \frac{2}{8} = \frac{3}{12}$

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

3 $\frac{1}{6} = \frac{2}{12} = \frac{3}{18}$

4 $\frac{3}{10} = \frac{6}{20} = \frac{9}{30}$

5 $\frac{5}{12} = \frac{10}{24} = \frac{15}{36}$

Copy and complete these equivalent fractions.

6 $\frac{2}{3} = \frac{8}{\square}$

7 $\frac{3}{4} = \frac{15}{\square}$

8 $\frac{3}{7} = \frac{6}{\square}$

9 $\frac{5}{6} = \frac{15}{\square}$

10 $\frac{7}{8} = \frac{42}{\square}$

11 $\frac{2}{5} = \frac{\square}{100}$

12 $\frac{4}{9} = \frac{\square}{36}$

13 $\frac{8}{25} = \frac{\square}{200}$

14 $\frac{7}{12} = \frac{\square}{60}$

15 $\frac{3}{4} = \frac{\square}{100}$

Simplify each fraction by cancelling.

16 $\frac{12}{14}$

21 $\frac{25}{30}$

17 $\frac{15}{25}$

22 $\frac{750}{1000}$

18 $\frac{44}{48}$

23 $\frac{12}{16}$

19 $\frac{35}{100}$

24 $\frac{9}{24}$

20 $\frac{16}{24}$

25 $\frac{68}{100}$

C

Pick out the letters above the fractions equivalent to the fraction in the brackets.
Rearrange these letters to find a European capital city.

1

D	I	S	E	N	O	L	R	M	B
$\frac{12}{15}$	$\frac{9}{12}$	$\frac{4}{6}$	$\frac{27}{36}$	$\frac{15}{20}$	$\frac{60}{100}$	$\frac{21}{28}$	$\frac{6}{8}$	$\frac{10}{15}$	$\frac{12}{16}$

 $\left(\frac{3}{4}\right)$

3

A	E	M	G	N	D	I	N	R	V
$\frac{8}{20}$	$\frac{14}{35}$	$\frac{12}{25}$	$\frac{20}{60}$	$\frac{4}{10}$	$\frac{15}{40}$	$\frac{10}{25}$	$\frac{18}{45}$	$\frac{25}{80}$	$\frac{6}{15}$

 $\left(\frac{2}{5}\right)$

2

A	T	S	P	N	A	W	I	R	W
$\frac{4}{8}$	$\frac{12}{20}$	$\frac{7}{14}$	$\frac{20}{50}$	$\frac{8}{15}$	$\frac{3}{6}$	$\frac{50}{100}$	$\frac{6}{10}$	$\frac{15}{30}$	$\frac{9}{18}$

 $\left(\frac{1}{2}\right)$

4

S	A	L	I	N	P	E	T	R	H
$\frac{25}{30}$	$\frac{10}{12}$	$\frac{40}{45}$	$\frac{50}{54}$	$\frac{20}{24}$	$\frac{45}{50}$	$\frac{75}{90}$	$\frac{15}{18}$	$\frac{25}{36}$	$\frac{35}{42}$

 $\left(\frac{5}{6}\right)$

5 Now make up a similar problem of your own.