Homework/Extension
Step 1: Simplify Fractions

National Curriculum Objectives:

Mathematics Year 6: (6F2) Use common factors to simplify fractions; use common multiples to express fractions in the same denomination

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Identify the fraction which will simplify to a given fraction when using denominators which are multiples of the numerator. Bar models included for support.
Expected Identify the fraction which will simplify to a given fraction when using the highest common factors of the numerator and denominator. Involving multiples of any number up to 12 x 12. Some pictorial support given.
Greater Depth Identify the fraction which will simplify to a given fraction when using the highest common factors of the numerator and denominator. Involving multiples of any number up to 12 x 12 and introducing multiples of 20 and 25. No pictorial support given.

Questions 2, 5 and 8 (Varied Fluency)
Developing Complete the fractions so that they simplify to a given fraction. Using denominators which are multiples of the numerator. Bar models included for support.
Expected Complete the fractions so that they simplify to a given fraction. Using the highest common factors of the numerator and denominator. Involving multiples of any number up to 12 x 12.
Greater Depth Complete the fractions so they simplify to a given fraction and then find one more fraction. Using highest common factors of the numerator and denominator. Involving multiples of any number up to 12 x 12 and introducing multiples of 20 and 25. No pictorial support given.

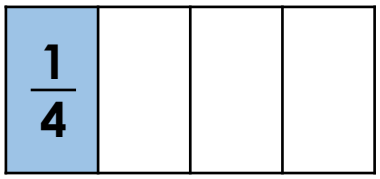
Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Spot the odd one out and explain why when simplifying fractions using denominators which are multiples of the numerator. Bar models included for support.
Expected Spot the odd one out and explain why when simplifying fractions using the highest common factors of the numerator and denominator. Involving multiples of any number up to 12 x 12. Some pictorial support given.
Greater Depth Spot the odd one out and explain why when simplifying fractions using the highest common factors of the numerator and denominator. Involving multiples of any number up to 12 x 12 and introducing multiples of 20 and 25. No pictorial support given.

More Year 6 Fractions resources.

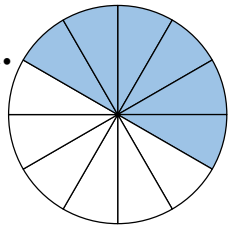
Did you like this resource? Don't forget to review it on our website.

Simplify Fractions

1. Which image will simplify to the fraction below?

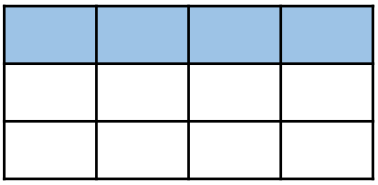


A.



B.

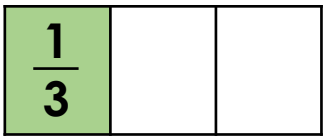
C.

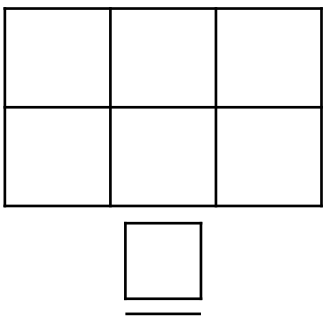


D

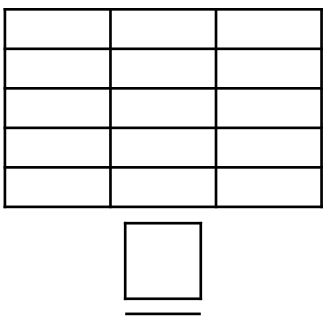
VF
HW/Ext

2. Complete and colour the fractions below so they simplify to:

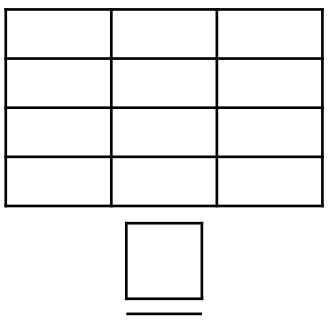




$\frac{\square}{6}$



$\frac{\square}{15}$



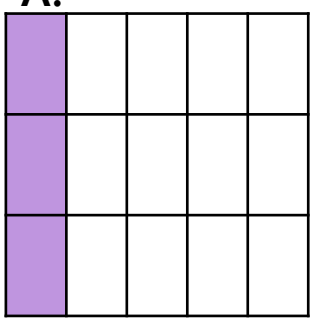
$\frac{\square}{12}$

D

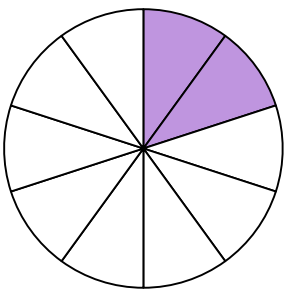
VF
HW/Ext

3. Spot the odd one out.

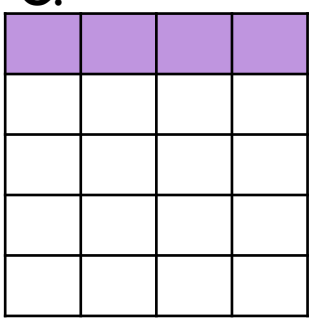
A.



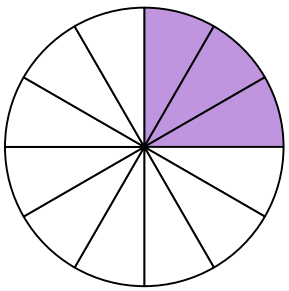
B.



C.



D.



Explain why.

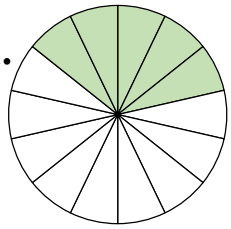
D

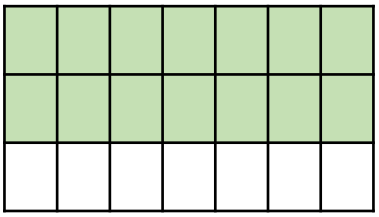
RPS
HW/Ext

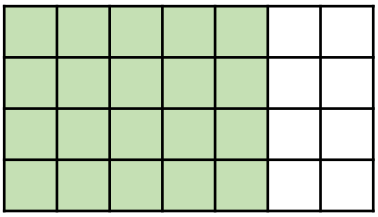
Simplify Fractions

4. Which image will simplify to the fraction below?

$$\frac{5}{7}$$

A. 

B. 

C. 

E

VF
HW/Ext

5. Complete the fractions below so they simplify to $\frac{7}{8}$.

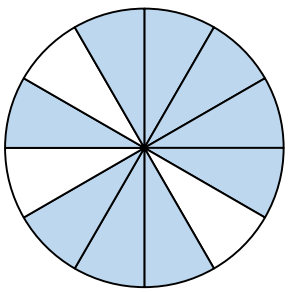
$$\frac{21}{\square} \qquad \frac{\square}{56} \qquad \frac{42}{\square} \qquad \frac{\square}{16}$$

E

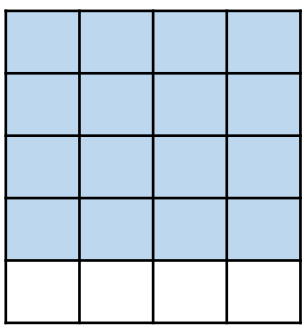
VF
HW/Ext

6. Spot the odd one out.

A. $\frac{12}{16}$

B. 

C. $\frac{21}{28}$

D. 

Explain why.

E

RPS
HW/Ext

Simplify Fractions

7. When written as fractions, which of the statements will simplify to the fraction below?

$$\frac{4}{5}$$

A. 32 girls in a class of 40 children.	B. 60 daffodils out of 75 wild flowers.	C. 45 correct spellings out of 50.	D. 80 women in a room of 100 people.

GD

VF
HW/Ext

8. Complete the fractions below so they simplify to $\frac{5}{8}$.

$$\frac{25}{\square} \qquad \frac{\square}{24} \qquad \frac{45}{\square} \qquad \frac{\square}{56}$$

Write one more fraction that will simplify to $\frac{5}{8}$.

GD

VF
HW/Ext

9. Spot the odd one out.

A. $\frac{28}{100}$ B. $\frac{21}{75}$ C. $\frac{42}{75}$ D. $\frac{14}{50}$

Explain why.

GD

RPS
HW/Ext

Homework/Extension
Simplify Fractions

Developing

1. B
2. $\frac{2}{6}$, $\frac{5}{15}$, $\frac{4}{12}$
3. D is the odd one out as it simplifies to $\frac{1}{4}$. A, B and C simplify to $\frac{1}{5}$.

Expected

4. C
5. $\frac{21}{24}$, $\frac{49}{56}$, $\frac{42}{48}$, $\frac{14}{16}$
6. D is the odd one out as it simplifies to $\frac{4}{5}$. A, B and C simplify to $\frac{3}{4}$.

Greater Depth

7. A, B and D
8. $\frac{25}{40}$, $\frac{15}{24}$, $\frac{45}{72}$, $\frac{35}{56}$ Various answers, for example: $\frac{20}{32}$, $\frac{30}{48}$, $\frac{40}{64}$
9. C is the odd one out as it simplifies to $\frac{14}{25}$. A, B and D simplify to $\frac{7}{25}$.