

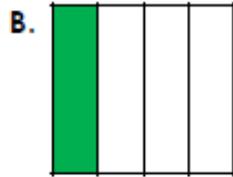
# Maths y5- Monday 1<sup>st</sup> March

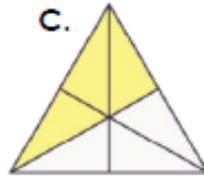
Today, you will be checking your understanding of **equivalent fractions**, before we move on into more detail learning about fractions greater than one and mixed number fractions. Answer the questions below. Choose between either level 1, 2 or 3. Then try to answer one of the 'Discussion Problems' on page 4. Answers are on page 5.

## Level 1 Developing

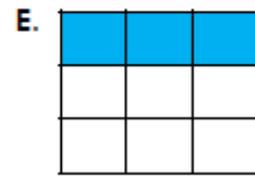
1. Tick the shapes that have  $\frac{1}{3}$  shaded.











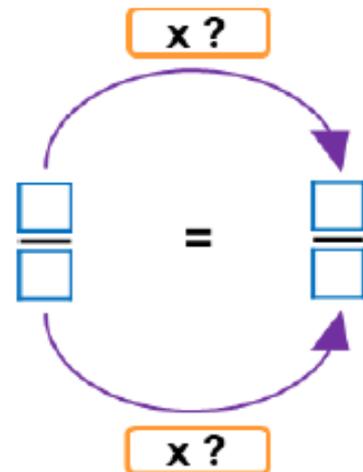


VF  
HW/Ext

2. Complete the sequence of equivalent fractions. Use the diagram to help you.

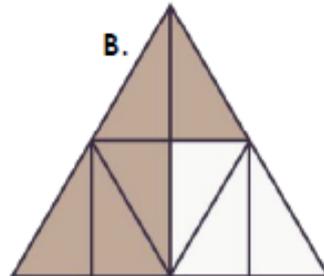
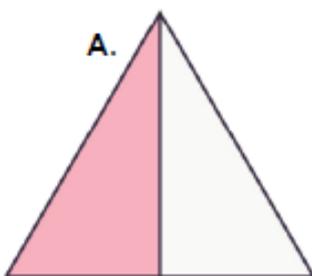
A.  $\frac{\boxed{1}}{\boxed{4}} = \frac{\boxed{2}}{\boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{\boxed{12}} = \frac{\boxed{4}}{\boxed{\phantom{00}}}$

B.  $\frac{\boxed{1}}{\boxed{5}} = \frac{\boxed{\phantom{00}}}{\boxed{10}} = \frac{\boxed{3}}{\boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{\boxed{20}}$



VF  
HW/Ext

3. Ben shades these shapes. He says,



One-half of each shape is shaded.

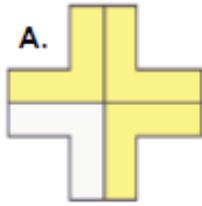
Explain his mistake.

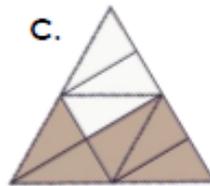


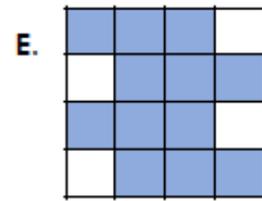
RPS  
HW/Ext

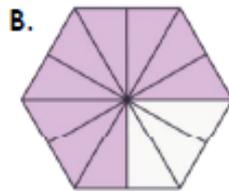
## Level 2 Expected

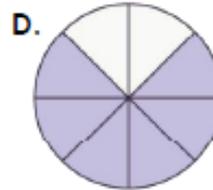
4. Tick the shapes that have  $\frac{3}{4}$  shaded.











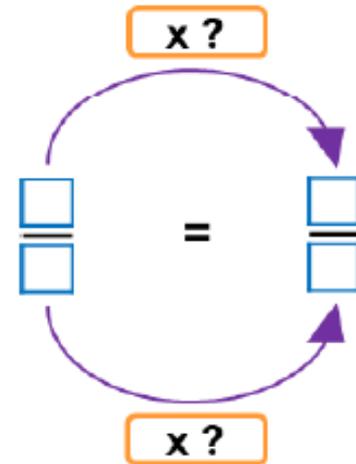


VF  
HW/Ext

5. Complete the sequence of equivalent fractions. Use the diagram to help you.

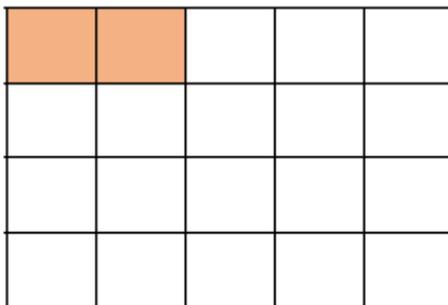
A.  $\frac{\boxed{4}}{\boxed{6}} = \frac{\boxed{8}}{\boxed{\quad}} = \frac{\boxed{\quad}}{\boxed{18}} = \frac{\boxed{16}}{\boxed{\quad}}$

B.  $\frac{\boxed{3}}{\boxed{8}} = \frac{\boxed{\quad}}{\boxed{16}} = \frac{\boxed{9}}{\boxed{\quad}} = \frac{\boxed{\quad}}{\boxed{32}}$



VF  
HW/Ext

6. Jasmin shades this shape. She says,



Two-fifths of my shape is shaded.

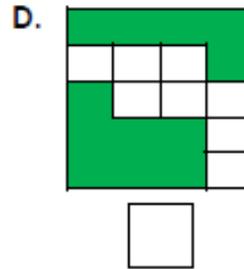
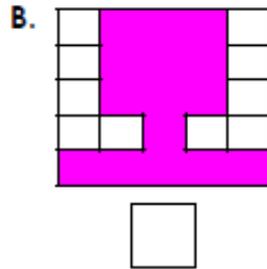
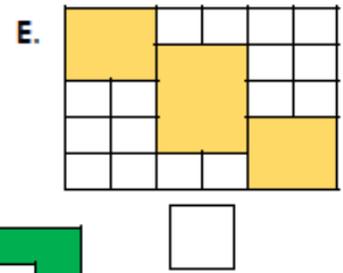
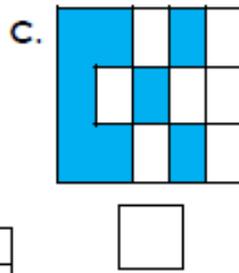
Explain her mistake.



RPS  
HW/Ext

# Level 3 Greater depth

7. Tick the shapes that have  $\frac{3}{5}$  shaded.



VF  
HW/Ext

8. Complete the sets of equivalent fractions.

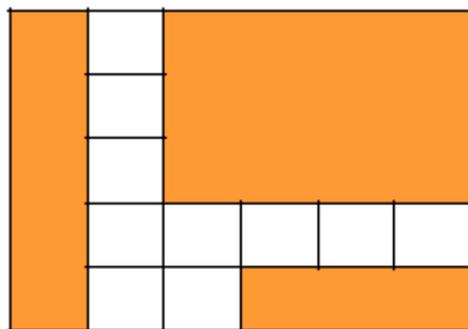
A.  $\frac{\square}{\square} = \frac{\square}{16} = \frac{21}{24} = \frac{\square}{40} = \frac{63}{\square}$

B.  $\frac{\square}{\square} = \frac{8}{\square} = \frac{12}{27} = \frac{28}{\square} = \frac{\square}{81}$



VF  
HW/Ext

9. Carl shades this shape. He says,



Five-sixths of my shape is shaded.



Explain his mistake.



RPS  
HW/Ext

## Discussion problems

1. Emile the Explorer is lost in the forest and needs some help to find her way through the maze. She can move horizontally or vertically to find her way home.



$\frac{2}{3}$	$\frac{12}{18}$	$\frac{8}{12}$	$\frac{6}{9}$	$\frac{14}{21}$	$\frac{48}{60}$	$\frac{32}{48}$	$\frac{6}{7}$
$\frac{4}{5}$	$\frac{24}{30}$	$\frac{36}{45}$	$\frac{16}{20}$	$\frac{4}{6}$	$\frac{18}{27}$	$\frac{16}{24}$	$\frac{10}{15}$
$\frac{6}{9}$	$\frac{32}{40}$	$\frac{12}{15}$	$\frac{40}{50}$	$\frac{28}{35}$	$\frac{8}{10}$	$\frac{44}{55}$	$\frac{20}{25}$
$\frac{5}{9}$	$\frac{40}{42}$	$\frac{55}{66}$	$\frac{30}{36}$	$\frac{11}{15}$	$\frac{15}{18}$	$\frac{50}{60}$	$\frac{35}{42}$
$\frac{5}{6}$	$\frac{20}{24}$	$\frac{14}{18}$	$\frac{10}{12}$	$\frac{45}{54}$	$\frac{25}{30}$	$\frac{8}{10}$	$\frac{3}{4}$

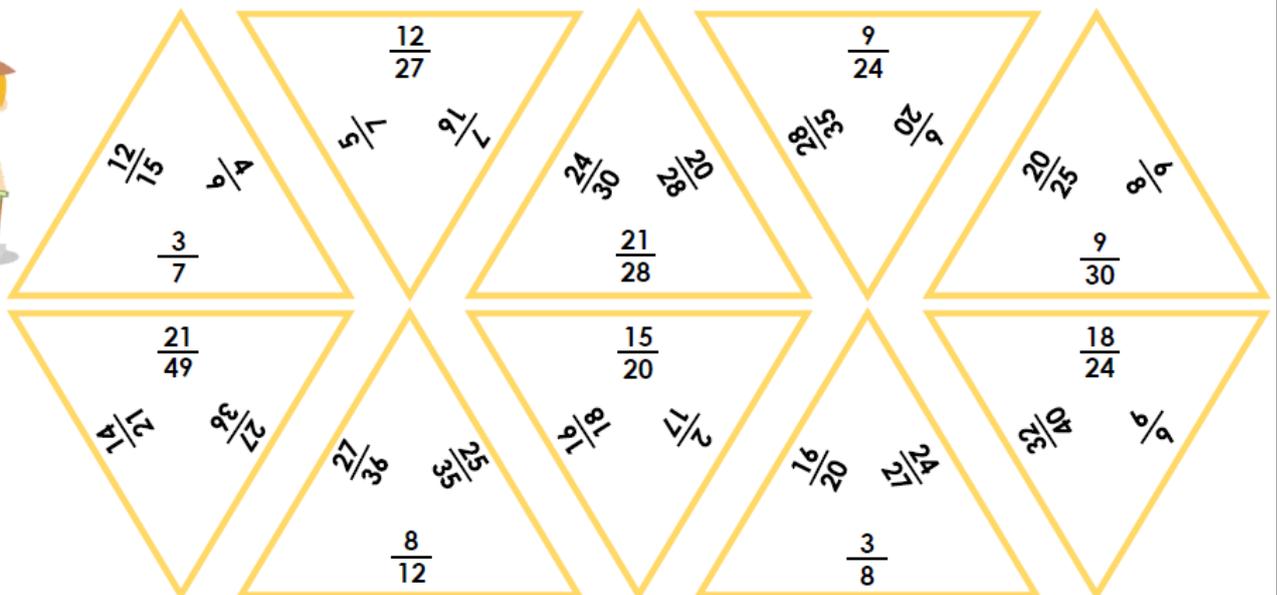
H  
o  
m  
e

Explore the different routes that Ellie can take to find her way home, by following the path of equivalent fractions.

DP

2. Albie the Archaeologist has discovered a puzzle on one of his dig sites.

He needs to join all of the triangles together. Each side that touches must be an equivalent fraction.



Investigate different ways to join the triangles together to solve the puzzle.

DP

## Answers

### Level 1, 2, 3

#### Developing

1. A, D and E

2. A.  $\frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \frac{4}{16}$  B.  $\frac{1}{5} = \frac{2}{10} = \frac{3}{15} = \frac{4}{20}$

3. Ben has shaded 5 out of 8 parts on triangle B. He needed to shade 4 out of 8 squares as  $\frac{4}{8} = \frac{1}{2}$ . Triangle A correctly has one half shaded.

#### Expected

4. A, B, D and E

5. A.  $\frac{4}{6} = \frac{8}{12} = \frac{12}{18} = \frac{16}{24}$  B.  $\frac{3}{8} = \frac{6}{16} = \frac{9}{24} = \frac{12}{32}$

6. Jasmin has shaded 2 squares instead of 2 columns. She has shaded 2 out of 20 squares which is not equivalent to  $\frac{2}{5}$ . She needed to shade 8 out of 20 squares which is equivalent to  $\frac{2}{5}$ .

#### Greater Depth

7. A, B and D

8. A.  $\frac{7}{8} = \frac{14}{16} = \frac{21}{24} = \frac{35}{40} = \frac{63}{72}$  B.  $\frac{4}{9} = \frac{8}{18} = \frac{12}{27} = \frac{28}{63} = \frac{36}{81}$

9. Carl has shaded 20 out of 30 squares which is equivalent to  $\frac{4}{6}$  or  $\frac{2}{3}$ . He needed to shade 25 out of 30 squares which is equivalent to  $\frac{5}{6}$ .

## Discussion problems Answers

1. Emile the Explorer is lost in the forest and needs some help to find her way through the maze. She can move horizontally or vertically to find her way home.



$\frac{2}{3}$	$\frac{12}{18}$	$\frac{8}{12}$	$\frac{6}{9}$	$\frac{14}{21}$	$\frac{48}{60}$	$\frac{32}{48}$	$\frac{6}{7}$
$\frac{4}{5}$	$\frac{24}{30}$	$\frac{36}{45}$	$\frac{16}{20}$	$\frac{4}{6}$	$\frac{18}{27}$	$\frac{16}{24}$	$\frac{10}{15}$
$\frac{6}{9}$	$\frac{32}{40}$	$\frac{12}{15}$	$\frac{40}{50}$	$\frac{28}{35}$	$\frac{8}{10}$	$\frac{44}{55}$	$\frac{20}{25}$
$\frac{5}{9}$	$\frac{40}{42}$	$\frac{55}{66}$	$\frac{30}{36}$	$\frac{11}{15}$	$\frac{15}{18}$	$\frac{50}{60}$	$\frac{35}{42}$
$\frac{5}{6}$	$\frac{20}{24}$	$\frac{14}{18}$	$\frac{10}{12}$	$\frac{45}{54}$	$\frac{25}{30}$	$\frac{8}{10}$	$\frac{3}{4}$

H  
o  
m  
e

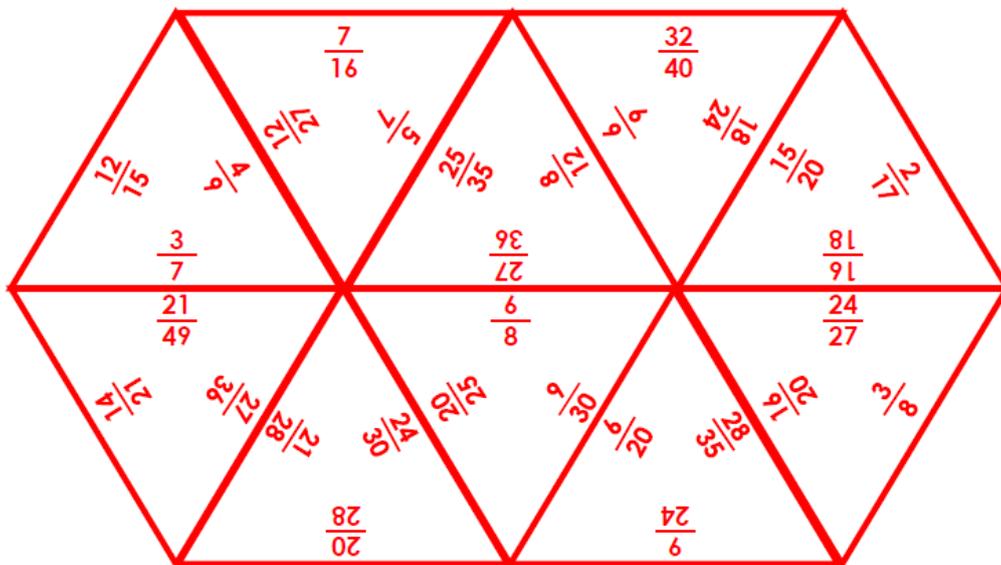
Explore the different routes that Ellie can take to find her way home, by following the path of equivalent fractions.

Various answers, one example shown on the maze above.

DP

2. Albie the Archaeologist has discovered a puzzle on one of his dig sites.

He needs to join all of the triangles together. Each side that touches must be an equivalent fraction.



Investigate different ways to join the triangles together to solve the puzzle.

Various answers, one example shown above.

DP