

Name: \_\_\_\_\_

## Exam Style Questions

[Simplifying fractions](#)  
[Equivalent fractions](#)  
[Fractions of shapes](#)  
[Expressing as a fraction](#)



Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

### Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

### Revision for this topic

[www.corbettmaths.com/contents](http://www.corbettmaths.com/contents)

[Video 146](#)

[Video 135](#)

[Video 143](#)

[Video 136](#)



1. Simplify

(a)  $\frac{4}{10}$

$$\frac{2}{5}$$

(1)

(b)  $\frac{4}{8}$

$$\frac{1}{2}$$

(1)

(c)  $\frac{6}{15}$

$$\frac{2}{5}$$

(1)

(d)  $\frac{15}{20}$

$$\frac{3}{4}$$

(1)

(e)  $\frac{20}{100}$

$$\frac{1}{5}$$

(1)

2. Find the missing numbers

(a)  $\frac{3}{4} = \frac{\boxed{12}}{16}$

(1)

(b)  $\frac{\boxed{2}}{5} = \frac{6}{15}$

(1)

(c)  $\frac{7}{8} = \frac{35}{\boxed{40}}$

(1)

(d)  $\frac{2}{\boxed{5}} = \frac{16}{40}$

(1)

(e)  $\frac{4}{15} = \frac{\boxed{16}}{60}$

(1)

(f)  $\frac{6}{11} = \frac{66}{\boxed{121}}$

(1)

3. Here are some fractions.

$$\boxed{\frac{2}{4}} \quad \frac{3}{7} \quad \frac{5}{9} \quad \boxed{\frac{9}{18}} \quad \frac{10}{22}$$

Which two fractions are equivalent to  $\frac{1}{2}$  ?

(2)

4. Here is a shape made from 10 squares.



(a) Shade  $\frac{1}{2}$  of the shape.

(1)

(b) Simplify  $\frac{6}{8}$

$$\frac{3}{4}$$

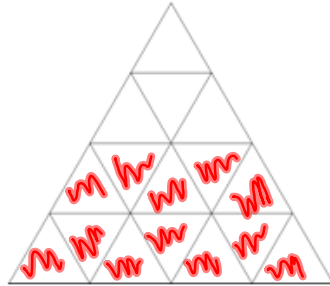
(c) Circle the fractions that are equivalent to  $\frac{4}{5}$

(1)

$$\frac{6}{10} \quad \boxed{\frac{12}{15}} \quad \frac{20}{30} \quad \frac{24}{25} \quad \boxed{\frac{44}{55}}$$

(2)

5. Shown is a triangular grid.



(a) Shade  $\frac{3}{4}$  of the shape.

$$\frac{3}{4} \text{ of } 16 = 12$$

(1)

(b) Simplify  $\frac{8}{14}$

$$\frac{4}{7}$$

(1)

6.



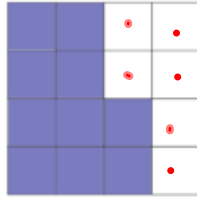
What fraction of this shape is shaded?  
Give your answer in its simplest form.

$$\frac{4}{12}$$

$$\frac{1}{3}$$

(2)

7.



What fraction of this shape is **unshaded**?  
Give your answer in its simplest form.

$$\frac{6}{16} = \frac{3}{8}$$

$$\frac{3}{8}$$

.....  
(2)

8. In a class there are 12 girls and 18 boys.

What fraction of the class are girls?  
Give your answer in its simplest form.

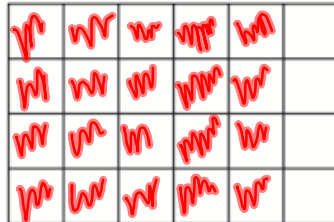
$$12 + 18 = 30$$

$$\frac{12}{30} = \frac{6}{15} = \frac{2}{5}$$

$$\frac{2}{5}$$

.....  
(2)

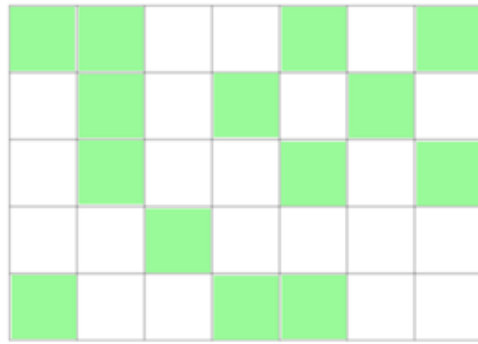
9.



Shade  $\frac{5}{6}$  of the shape.

(1)

10.



What fraction of this shape is shaded?  
Give your answer in its simplest form.

$$\frac{14}{35} = \frac{2}{5}$$

$$\frac{2}{5}$$

.....  
(2)

11. Explain why  $\frac{6}{8} = \frac{3}{4}$

Both the numerator and denominator  
are divided by 2.

.....  
.....

(1)

12. Write down three fractions that are equivalent to  $\frac{3}{8}$

$\frac{6}{16}$   $\frac{9}{24}$   $\frac{12}{32}$  etc

(3)

13.



Shade  $\frac{3}{7}$  of the shape.

(1)

14. Circle all the equivalent fractions below.

$\frac{1}{3}$   $\frac{2}{5}$   $\frac{2}{6}$   $\frac{3}{12}$   $\frac{5}{15}$

(2)



15. Of 500 people, 100 wear glasses.

Write the number of people who **do not** wear glasses as a fraction of the total number of people.

Give your answer in its simplest form.

$$\frac{400}{500} = \frac{4}{5}$$

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

.....

(2)

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16. There are 400 pupils in a primary school.  
Of the 400 pupils, 88 play a musical instrument.

Express the number of pupils who play a musical instrument as a fraction of the 400 pupils.

Give your answer in its simplest form.

$$\frac{88}{400} = \frac{22}{100} = \frac{11}{50}$$

$$\frac{11}{50}$$

.....

(2)

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17. Express 50p as a fraction of £4

Give your answer in its simplest form.

$$\frac{50}{400} = \frac{5}{40} = \frac{1}{8}$$

$$\frac{1}{8}$$

.....

(2)

18. In a bag there are 80 beads.  
There are 35 yellow beads.  
There are 17 red beads.  
The rest of the beads are white.

Work out what fraction of the beads are white.  
Give your answer in its simplest form.

$$\begin{array}{r} 35 \\ + 17 \\ \hline 52 \end{array}$$

$$\begin{array}{r} 70 \\ - 52 \\ \hline 18 \end{array}$$

$$\frac{18}{80} = \frac{9}{40}$$

$$\frac{7}{20} \dots\dots\dots (2)$$