Topics
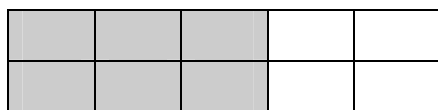
Equivalent fractions – Ordering fractions – Converting fractions to decimals and percentages
Improper fractions and mixed numbers – Calculating with fractions
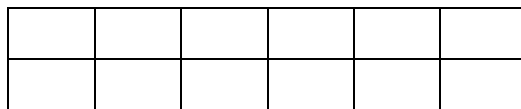
Questions

1.

(a) (i) What fraction of this shape is shaded? Write your fraction in its simplest form.

....

   (ii) Shade $\frac{1}{3}$ of this shape.

(3)

9 is the number that is half way between 6 and 12

6   ....**9**........   12

(b) Work out the number that is half way between

   (i) 10   11

   (ii) $1\frac{1}{2}$ 2

   (iii) $\frac{1}{4}$ .... $\frac{1}{2}$

(4)

(c) Find the point on the line *AB* that is **exactly** $\frac{2}{3}$ of the way along the line **from *A***.

Mark this point with a cross (×).

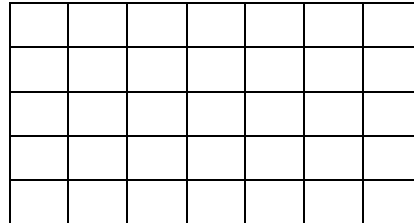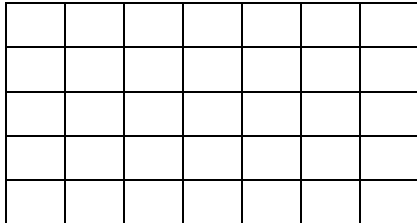*A*   *B*

(1)
(Total 8 marks)

Fractions

2. Here are two fractions $\frac{2}{5}$ and $\frac{3}{7}$

Explain which is the smaller fraction.

You may use the grids to help with your explanation.

…………………………………………………………………………………………….…

…………………………………………………………………………………………….…

…………………………………………………………………………………………….…

(Total 3 marks)

3. Abigail bought a box of 120 eggs for £20.

$\frac{2}{15}$ of the 120 eggs were cracked so she threw them away.

She sold the remaining eggs at x pence each.
She made a profit of 30%.

Calculate the value of x.

$x =$ …………………….

(Total 5 marks)

4. Write these numbers in order of size.
Start with the smallest number.

(i) $\dfrac{1}{2}, \dfrac{2}{3}, \dfrac{2}{5}, \dfrac{3}{4}$

....

(i) $\dfrac{1}{2}, \dfrac{3}{7}, \dfrac{5}{14}, \dfrac{11}{28}$

....

(i) $0.2, \dfrac{1}{10}, 0.3, \dfrac{3}{4}$

....
(Total 10 marks)

5. Here are six numbers

$$40\% \qquad \dfrac{4}{10} \qquad \dfrac{6}{15} \qquad 0.25 \qquad 0.4 \qquad 2.5\%$$

Two of the numbers are **not** equal to $\dfrac{2}{5}$

Draw a circle around each of the two numbers.

(Total 2 marks)

6. Write down the reciprocal of 4

....
(Total 1 mark)

7.   Here are some fractions.

$\dfrac{2}{8}$	$\dfrac{3}{10}$	$\dfrac{4}{16}$	$\dfrac{5}{20}$	$\dfrac{8}{24}$

Two of the fractions are **not** equivalent to $\dfrac{1}{4}$.

Tick the boxes underneath each of these **two** fractions.

(Total 2 marks)

8.   A school has 900 pupils.
460 of these pupils are girls.

$\frac{2}{5}$ of the boys like drama.

$\frac{3}{5}$ of the girls like drama.

Work out the total number of pupils in the school who like drama.

……………………………..

(Total 3 marks)

9.   Billy collects football stickers. He has 30 that he has already got, so he gives them to his friends.

He gives Roxy $\frac{3}{5}$ of the stickers.

He gives Giles $\frac{1}{10}$ of the stickers.

He gives the rest to Alice.

How many stickers does Billy give to Alice?

………………………

(Total 3 marks)

10.   Saima spent $\frac{1}{4}$ of her pocket money on a computer game.

She spent $\frac{1}{5}$ of her pocket money on a ticket for a concert.

Work out the fraction of her pocket money that she had left.

....

(Total 3 marks)

11.   Work out

$$3\frac{3}{4} \times 2\frac{2}{3}$$

....
(Total 3 marks)

12.   (a)   Work out $\dfrac{2}{5} + \dfrac{3}{8}$

....
(2)

    (b)   Work out $5\frac{2}{3} - 2\frac{3}{4}$

....
(3)
(Total 5 marks)