Surname	
Other Names	
Candidate's Signature	

GCSE 9 - 1 Questions

Fractions Decimals and Percentages

Calculator Not Allowed
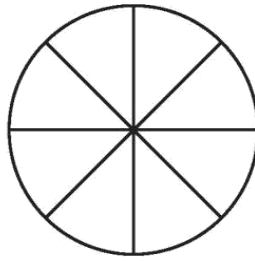
INSTRUCTIONS TO CANDIDATES

- Write your name in the space provided.

- Write your answers in the spaces provided in this question paper.

- Answer ALL questions.

- Any working should be clearly shown in the spaces provided since marks may be awarded for partially correct solutions.
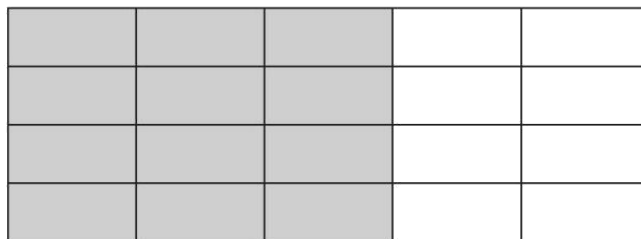
Total Marks :

1)

(a) (i) Shade $\frac{3}{4}$ of the following shape.   [1]

(ii) What **percentage** of the following shape is shaded?   [2]

....

.... %

(b) Fill in the missing fractions in the grid below.   [2]

1			
....			
$\frac{1}{4}$			
....							

2) *(a)*   Arrange the following in ascending order.   [1]

$$0.75 \qquad 0.5 \qquad 0.07 \qquad 0.507$$

....

(b)   Express each of the following as eighths.   [3]

(i) $\dfrac{1}{4} = \dfrac{}{8}$

(ii) $\dfrac{1}{2} = \dfrac{}{8}$

Now, write $\dfrac{1}{4}$, $\dfrac{1}{2}$ and $\dfrac{3}{8}$ in order, starting with the **largest**.

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3)
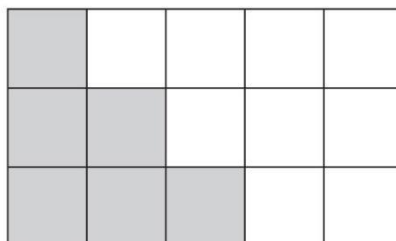
(a) What fraction of the above shape is shaded?

Write your answer in its simplest form.

Answer _____ [2]

(b) Write your answer to part **(a)** as a percentage.

Answer _____ % [1]

(c) What percentage of the shape is **not** shaded?

Answer _____ % [1]

4) **(a)** Write 0.4 as a percentage.

Answer _____% [1]

(b) Write 0.35 as a fraction.

Give your answer in its **simplest** form.

Answer _____ [2]

(c) Write 5% as a decimal.

Answer _____ [1]

5)

Fraction	Decimal	Percentage
	0.6	60%
$\frac{1}{4}$	0.25	
$\frac{9}{20}$		45%

Each row of the table has equivalent numbers.
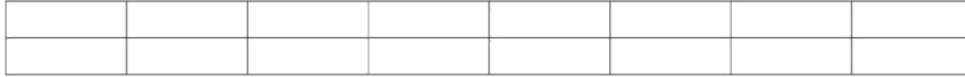
(a) Complete the table. [3]

(b) Arrange the fractions in order from smallest to largest.

Answer _____, _____, _____ [1]
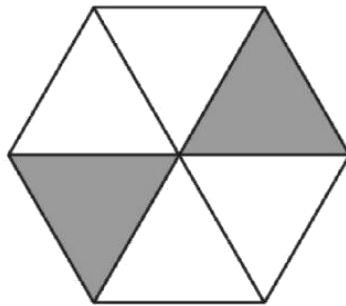
6) *(a)* Draw a circle around all of the following that have the same value as $\frac{3}{10}$. [2]

<div align="center">

30%   3% $\frac{3}{100}$ 0·3   0·03

</div>

(b) (i) Shade 25% of the following shape. [1]

(ii) What **fraction** of the following shape is shaded?
Write down your answer in its simplest form. [2]

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(c) Write 12%, 0·012 and $\frac{3}{20}$ in ascending order.

You must show all your working. [3]

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7) **Showing all your working**, write 76%, 0·7 and $\frac{3}{4}$ in descending order. [3]

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8) (a)
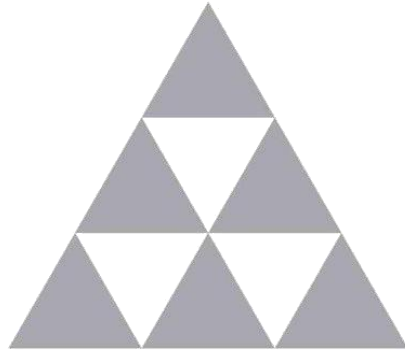
The triangle is divided into 9 equal parts.

Write down, **in its simplest form**, the fraction of the triangle which is **shaded**.

Answer _____ [2]

(b) Write $\frac{2}{5}$ as a percentage.

Answer _____ % [1]

(d) Write down the two fractions from this list which are **not** equal to $\frac{3}{4}$

$$\frac{9}{12} \quad \frac{15}{20} \quad \frac{3}{12} \quad \frac{12}{16} \quad \frac{15}{25}$$

Answer _____ , _____ [2]

9) Calculate the value of $\frac{3}{8}$ as a decimal. [2]

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10) *(a)* Complete the following table to show equivalent fractions, decimals and percentages.

Fraction	Decimal	Percentage
	0·75	
$\frac{3}{10}$		

[4]

11) Put the following in ascending order

$$0.72 \qquad \frac{3}{4} \qquad 70\%$$

Show your working clearly.

Answer _____ [3]

12) Show that the following numbers are in ascending order of size.

$$28\%, \quad \frac{3}{10}, \quad 0.4$$

[3]

13) $\frac{4}{5}$ as a percentage

Answer _____ % [1]

14) 0.55 as a fraction

Answer _____ [1]

15) Three companies have three different bonus payment schemes for their sales team.

- Company A offers a bonus payment equal to **25%** of all sales made

- Company B offers a bonus payment equal to $\frac{3}{10}$ of all sales made

- Company C offers a bonus payment equal to **0·2** times all sales made

Which company offers the best bonus payment scheme for their sales team?
You must show all your working.

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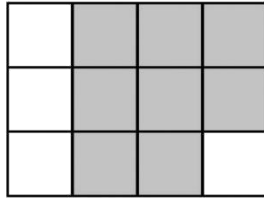
[3]

16) (a)

The rectangle is divided into 12 equal parts.

Write down, **in its simplest form**, the fraction of the rectangle which is **shaded**.

Answer _____ [2]

(b) Write $\frac{1}{4}$ as a percentage.

Answer _____% [1]

(c) Write 0.75 as a fraction in its simplest form.

Answer _____ [1]

(d) $\frac{2}{3}$ $\frac{6}{9}$ $\frac{10}{15}$ $\frac{4}{12}$ $\frac{4}{6}$ $\frac{2}{5}$

Explain why $\frac{4}{12}$ and $\frac{2}{5}$ are different from the other fractions.

[2]

17) Abbie, Beatrice, Catrin and Debbie all sat the same test.

Name	Test results
Abbie	23 out of 84 marks awarded
Beatrice	Scored approximately 31%
Catrin	Total given was $\frac{1}{3}$ of marks available
Debbie	$\frac{27}{84}$

Compare their test results and complete the table below.
You must show all your working. [3]

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Position	Name
First	....
Second	....
Third	....
Fourth	....

18) A band hired a concert hall for two nights.
They would only hire the hall for a third night if at least 0·9 of the tickets were sold for either of the first two nights.

On the first night, 82% of the tickets were sold.

On the second night, $\frac{3}{4}$ of the tickets were sold.

Did the band hire the concert hall for a third night?
You must **show all your working**, explaining clearly how you decided. [3]

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19) *(a)* Draw a circle around all of the following fractions that are equal to 40%. [2]

$$\frac{8}{20} \qquad \frac{1}{4} \qquad \frac{2}{5} \qquad \frac{10}{40} \qquad \frac{5}{20}$$

(b) Shade 30% of the following figure. [1]