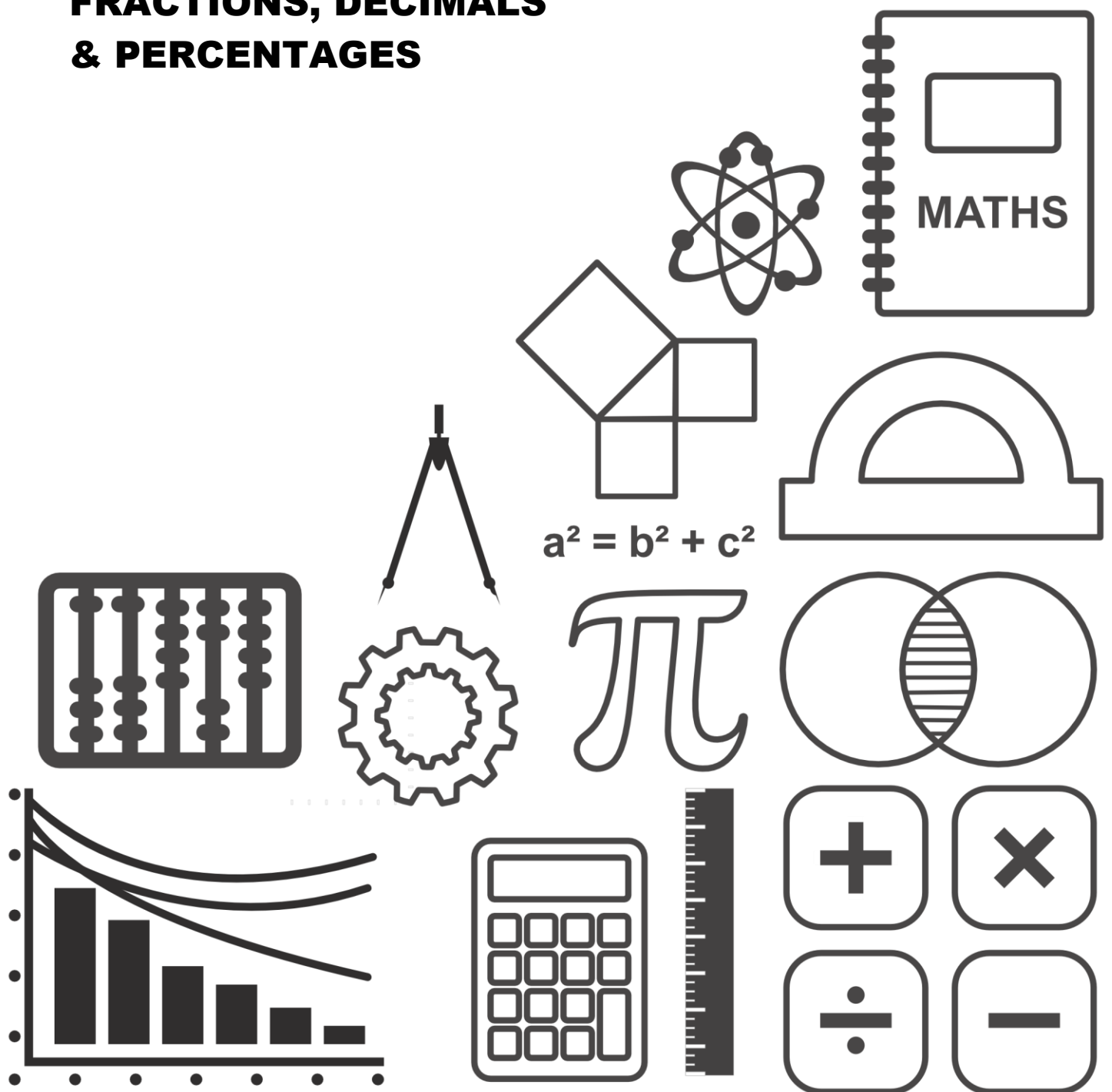


GCSE TOPIC BOOKLET FRACTIONS, DECIMALS & PERCENTAGES

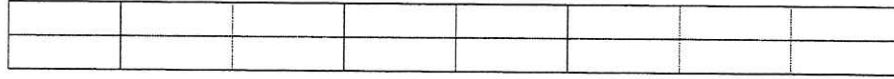


1.

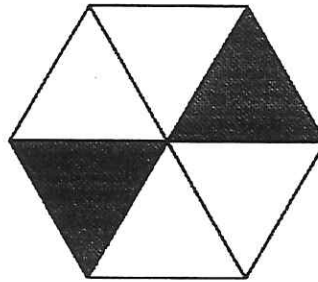
- (a) Draw a circle around all of the following that have the same value as $\frac{3}{10}$. [2]

30% 3% $\frac{3}{100}$ 0.3 0.03

- (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]



- (c) Write 12%, 0.012 and $\frac{3}{20}$ in ascending order.

You must show all your working. [3]

2.

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

0.75 0.5 0.07 0.507

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

(i) $\frac{1}{4} = \frac{\quad}{8}$

(ii) $\frac{1}{2} = \frac{\quad}{8}$

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

3.

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 	

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

Fraction	Decimal	Percentage
	0.75	
$\frac{3}{10}$		

[4]

(b) Find 42% of 630.

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[2]

(c) Find $\frac{3}{7}$ of 364.

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[2]

6.

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.

[3]

7.

Calculate the value of $\frac{3}{8}$ as a decimal.

[2]

8.

Showing all your working, write 76%, 0.7 and $\frac{3}{4}$ in descending order.

[3]

9.

- (a) Draw a circle around all of the following quantities that are equal to $\frac{2}{5}$. [2]

$$\frac{10}{15}$$

$$0.4$$

$$\frac{6}{15}$$

$$\frac{8}{10}$$

$$\frac{4}{10}$$

- (b) One thousand apples are put into crates.
Each crate can hold 72 apples.
How many crates can be filled and how many apples will be left over? [2]

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- (c) What is 7% written as a decimal? [1]

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- (d) Calculate 48% of 82.5. [2]

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- (e) Calculate $\frac{3}{7}$ of 84. [2]

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10.

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

Fraction	Decimal	Percentage
		25%
	0.7	

[4]

(b) Find 38% of 790.

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[2]

(c) Find $\frac{4}{9}$ of 117.

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[2]

(d) Faye had 40 scarves, she gave $\frac{1}{4}$ of them to a charity shop and gave 20% of the remaining scarves to friends. How many scarves did Faye have left?

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[4]

(e) What is the reciprocal of 8?

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[1]

11.

(a) Find 27% of 830.

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[2]

(b) Daniel was given £1500.

He spent $\frac{1}{3}$ of the money on his car and $\frac{1}{5}$ of the money going out with friends.

He saved the rest of the money.

How much money did he save?

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[4]

(c) Write 0.3 as a percentage.

Write $\frac{17}{50}$ as a percentage.

Write 0.3, $\frac{17}{50}$ and 28% in ascending order.

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[3]

12.

(a) Arrange the following in ascending order.

0.34 0.3 0.04 0.403

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[1]

(b) Evaluate $\frac{3}{8} + \frac{1}{2}$.

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[2]

13.

Megan has some blocks.

10% of the blocks are white.

$\frac{3}{5}$ of the blocks are red.

The rest of the blocks are green.

There are 33 green blocks.

How many blocks are there altogether?

[5]

14.

(a) Draw a circle around all of the following fractions that are equal to 40%.

[2]

$$\frac{8}{20}$$

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

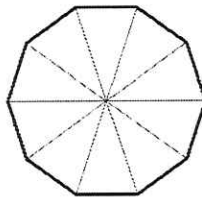
$$\frac{2}{5}$$

$$\frac{10}{40}$$

$$\frac{5}{20}$$

(b) Shade 30% of the following figure.

[1]



(c) Find, in its simplest form, $\frac{5}{6} - \frac{1}{3}$.

[2]
