| Name | Class |
|------|-------|
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# ♦ MATHS TEACHER HUB

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# Fractions, decimals and percentages

## (9 – 1) Topic booklet

**These questions have been collated from previous years GCSE Mathematics papers.**

**You must have:** Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.

Total Marks

## Instructions
•Use **black** ink or ball-point pen.
•**Fill in the boxes** at the top of this page with your name, centre number and candidate number.
•Answer **all** questions.
•Answer the questions in the spaces provided
 – *there may be more space than you need*.
•Diagrams are NOT accurately drawn, unless otherwise indicated.
•You must **show all your working out.**
•If the question is a **1F** question you are not allowed to use a calculator.
•If the question is a **2F** or a **3F** question, you may use a calculator to help you answer.

## Information
•The marks for **each** question are shown in brackets
 – *use this as a guide as to how much time to spend on each question*.

## Advice
•Read each question carefully before you start to answer it.
•Keep an eye on the time.
•Try to answer every question.
•Check your answers if you have time at the end.

**Answer ALL questions**
**Write your answers in the space provided.**
**You must write down all the stages in your working.**

**1** Write 0.3 as a fraction.

.............................................

November 2022 – 1F

**(Total for Question 1 is 1 mark)**

**1** Write 35% as a fraction.

.............................................

June 2022 – Paper 3F

**(Total for Question 1 is 1 mark)**

**1** Write $\dfrac{3}{10}$ as a percentage.

.............................................%

November 2021 – Paper 1F

**(Total for Question 1 is 1 mark)**

**1** Write 31% as a fraction.

.............................................

November 2021 – Paper 2F

**(Total for Question 1 is 1 mark)**

2

**1** Write 45% as a decimal.

.............................................

**(Total for Question 1 is 1 mark)**

**1** Write 0.37 as a fraction.

.............................................

**(Total for Question 1 is 1 mark)**

**1** Write 0.75 as a fraction.

.............................................

**(Total for Question 1 is 1 mark)**

**1** Write $\dfrac{4}{50}$ as a percentage.

.............................................%

**(Total for Question 1 is 1 mark)**

**1** Write $\dfrac{9}{10}$ as a decimal.

.............................................

**(Total for Question 1 is 1 mark)**

**1** Write $\dfrac{7}{100}$ as a decimal.

.......................................................

**(Total for Question 1 is 1 mark)**

**2** Write 37% as a fraction.

.......................................................

**(Total for Question 2 is 1 mark)**

**2** Write 0.73 as a percentage.

....................................................... %

**(Total for Question 2 is 1 mark)**

**2** Write 0.6 as a percentage.

....................................................... %

**(Total for Question 2 is 1 mark)**

4

**2** Write 0.3 as a percentage.

.......................................................%

**(Total for Question 2 is 1 mark)**

**2** Write 0.19 as a fraction.

.......................................................

**(Total for Question 2 is 1 mark)**

**2** Write 0.037 as a fraction.

.......................................................

**(Total for Question 2 is 1 mark)**

**2** Write $\dfrac{7}{16}$ as a decimal.

.......................................................

**(Total for Question 2 is 1 mark)**

**2** Write 3% as a fraction.

.......................................................

**(Total for Question 2 is 1 mark)**

**3** Write $\dfrac{4}{5}$ as a decimal.

.......................................................

**(Total for Question 3 is 1 mark)**

**3** Write $\dfrac{9}{100}$ as a decimal.

.......................................................

**(Total for Question 3 is 1 mark)**

**3** Write 40% as a fraction.

.......................................................

**(Total for Question 3 is 1 mark)**

**3** Write 0.23 as a percentage.

....................................................... **%**

**(Total for Question 3 is 1 mark)**

**3** Write 0.7 as a fraction.

.......................................................

**(Total for Question 3 is 1 mark)**

**3** Write 20% as a fraction.

......................................................

**(Total for Question 3 is 1 mark)**

**3** Write 0.21 as a fraction.

......................................................

**(Total for Question 3 is 1 mark)**

**3** Write 0.075 as a fraction.
Give your fraction in its simplest form.

......................................................

**(Total for Question 3 is 2 marks)**

**4** Write $\dfrac{3}{4}$ as a decimal.

......................................................

**(Total for Question 4 is 1 mark)**

**4** Write $\dfrac{1}{4}$ as a percentage.

......................................................%

**(Total for Question 4 is 1 mark)**

**4** Write $\frac{4}{5}$ as a percentage.

.................................................%

**(Total for Question 4 is 1 mark)**

**4** Write 0.9 as a percentage.

.................................................%

**(Total for Question 4 is 1 mark)**

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

$$\frac{1}{2} \qquad 0.55 \qquad 45\%$$

.................................................................................

**(Total for Question 5 is 1 mark)**

**5** Write 0.4 as a percentage.

.................................................%

**(Total for Question 5 is 1 mark)**

**5** Write 15% as a decimal.

.......................................................

**(Total for Question 5 is 1 mark)**

**5** Write 19% as a fraction.

.......................................................

**(Total for Question 5 is 1 mark)**

**5** Write 0.31 as a fraction.

.......................................................

**(Total for Question 5 is 1 mark)**

**5** Write $\frac{3}{5}$ as a percentage.

....................................... %

**(Total for Question 5 is 1 mark)**

**9** What percentage of this shape is shaded?

................................................ %
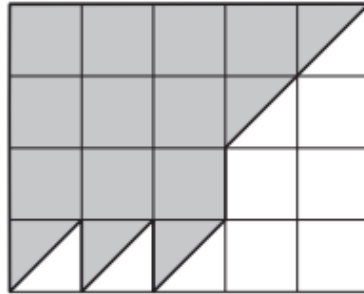
**(Total for Question 9 is 3 marks)**

**14** Here are two fractions.

$$\frac{7}{5} \qquad \frac{5}{7}$$

Work out which of the fractions is closer to 1
You must show all your working.

**(Total for Question 14 is 3 marks)**