

Name

Class



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# Using a calculator

(9 – 1) Topic booklet

## Foundation

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.**

**2** Work out  $\frac{30 + 12}{5 + 3}$



Specimen 1 – Paper 3F

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

**4** Find the value of  $(2.8 - 0.45)^2 + \sqrt[3]{5.832}$



Sample 1 – Paper 2F

**(Total for Question 4 is 2 marks)**

8 (a) Find the value of  $\sqrt{1.44 \times 3.61}$



.....  
(1)

(b) Find the value of  $(3.54 - 0.96)^2 - 4.096$

.....  
(2)

May 2018 – Paper 3F

**(Total for Question 8 is 3 marks)**

9 (a) Work out the value of  $\frac{300}{2 \times 5}$



.....  
(1)

(b) Work out the value of  $(6 - 2.5)(8 + 4)$

.....  
(1)

(c) Write down the reciprocal of 20

.....  
(1)

May 2020 – Paper 3F

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

9 (a) Find the value of  $\sqrt[3]{97.336}$



.....  
(1)

(b) Find the value of  $\sqrt{7.29} + (2.3 - 0.85)^2$

.....  
(2)

Specimen 2 – Paper 3F

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

12 (a) Work out  $\sqrt{\frac{13.82}{4.06}}$



Write down all the figures on your calculator display.

.....  
(2)

(b) Give your answer to part (a) correct to 2 decimal places.

.....  
(1)

November 2021 – Paper 1F

(Total for Question 12 is 3 marks)

12 Find the value of  $\frac{\sqrt{13.4 - 1.5}}{(6.8 + 0.06)^2}$



Write down all the figures on your calculator display.

June 2017 – Paper 2F

.....  
(Total for Question 12 is 2 marks)

**14** Find the value of  $\frac{5.27 + 3.5}{7.9 - 4.36}$



Give your answer as a decimal.

Write down all the figures on your calculator display.

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June 2019 – Paper 3F

**(Total for Question 14 is 2 marks)**

**15** Work out  $\frac{2.75 \times 14.6}{10 - 1.97}$



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June 2022 – Paper 3F

**(Total for Question 15 is 2 marks)**

15 (a) Work out  $\frac{4}{5}$  of 210 cm.



..... cm  
(1)

(b) Work out  $(6 - 2.5)^2 + \sqrt{9.34 - 2.58}$

.....  
(2)

Specimen 1 – Paper 2F

(Total for Question 15 is 3 marks)

17 (a) Write 87 569 correct to 3 significant figures.



.....  
(1)

(b) Work out  $\frac{(3.2 + 3.7) \times 4.9}{5.3 - 2.8}$

Give your answer as a decimal.

.....  
(2)

November 2022 – 3F

(Total for Question 17 is 3 marks)

**18** (a) Work out  $\frac{9.8 + 6.8}{4.2 \times 2.1}$



Give your answer as a decimal.

Write down all the figures on your calculator display.

.....  
(2)

(b) Write your answer to part (a) correct to 2 decimal places.

.....  
(1)

November 2023 – Paper 2F

**(Total for Question 18 is 3 marks)**



19 (a) Work out the value of  $\frac{\sqrt{35.2 + 1.7^3}}{4.6^2 - 8.91}$



Write down all the numbers on your calculator display.

.....  
(2)

(b) Write your answer to part (a) correct to 2 significant figures.

.....  
(1)

20 (a) Work out the value of  $\frac{25 - \sqrt{43.87}}{6 + 2.1^2}$



Write down all the figures on your calculator display.

.....  
(2)

(b) Work out the value of the reciprocal of 0.625

.....  
(1)

June 2023 – Paper 2F

(Total for Question 20 is 3 marks)

20 (a) Write 7357 correct to 3 significant figures.



.....  
(1)

(b) Work out  $\frac{\sqrt{17 + 4^2}}{7.3^2}$

Write down all the figures on your calculator display.

.....  
(2)

November 2018 – Paper 3F

(Total for Question 20 is 3 marks)

**23** (a) Use your calculator to work out  $\frac{29^2 - 4.6}{\sqrt{35 - 1.9^3}}$



Write down all the figures on your calculator display.

.....  
(2)

(b) Write your answer to part (a) correct to 4 significant figures.

.....  
(1)

November 2019 – Paper 3F

**(Total for Question 23 is 3 marks)**

**23** Use your calculator to work out  $\sqrt{\frac{\sin 25^\circ + \sin 40^\circ}{\cos 25^\circ - \cos 40^\circ}}$



(a) Write down all the figures on your calculator display.

.....  
(2)

(b) Write your answer to part (a) correct to 2 decimal places.

.....  
(1)

November 2017 – Paper 2F

**(Total for Question 23 is 3 marks)**

- 23** Find the value of the reciprocal of 1.6  
Give your answer as a decimal.



.....  
(1)

November 2017 – Paper 3F

**(Total for Question 23 is 1 mark)**

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