

Name

ANSWERS

Class



MATHS TEACHER HUB

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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 $\frac{30 + 12}{5 + 3} = 5.25$



5.25

Specimen 1 – Paper 3F

(Total for Question 2 is 1 mark)

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



7.3225

Sample 1 – Paper 2F

(Total for Question 4 is 2 marks)

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



2.28

(1)

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

2.5604

(2)

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



30

(1)

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

42

(1)

- (c) Write down the reciprocal of 20

$$\frac{20}{1} \rightarrow \frac{1}{20}$$

0.05

(1)

May 2020 – Paper 3F

(Total for Question 9 is 3 marks)

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



4.6

(1)

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

4.8025

(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.

1.844977205

(2)

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

1.84

(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.

0.07330359081

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.



2.47740112994350

June 2019 – Paper 3F

(Total for Question 14 is 2 marks)



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

5

June 2022 – Paper 3F

(Total for Question 15 is 2 marks)

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



168

cm

(1)

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

14.85

(2)

Specimen 1 – Paper 2F

(Total for Question 15 is 3 marks)

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



87600

(1)

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

Give your answer as a decimal.

13.524

(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.

1.88208616780045

(2)

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

1.88

(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.

0.5170189759

(2)

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

0.52

(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.

1.76527923

(2)

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

$$\frac{1}{0.625}$$

1.6

(1)

June 2023 – Paper 2F

(Total for Question 20 is 3 marks)

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



7360

(1)

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

Write down all the figures on your calculator display.

0.1077981356

(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.

157.668255

(2)

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

157.7

(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.

2.75603957

(2)

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

2.76

(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.



$$\frac{1}{1.6}$$

0.625

(1)

November 2017 – Paper 3F

(Total for Question 23 is 1 mark)