

Name

ANSWERS

Class



MATHS TEACHER HUB

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Change the subject

(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.

- 11** Make v the subject of the formula $T = 4v + 3$



$$v = \frac{T-3}{4}$$

(2)

June 2017 – Paper 3F

(Total for Question 11 is 2 marks)

- 19** Make x the subject of the formula $y = 2x + 4$



$$x = \frac{y-4}{2}$$

June 2019 – Paper 3F

(Total for Question 19 is 2 marks)

20 Make t the subject of the formula $w = 3t + 11$



$$t = \frac{w-11}{3}$$

Specimen 1 – Paper 2F

(Total for Question 20 is 2 marks)

21 Make a the subject of the formula $p = 3a - 9$



$$a = \frac{p+9}{3}$$

November 2022 – 3F

(Total for Question 21 is 2 marks)

21 Make s the subject of $v^2 = u^2 + 2as$

$$s = \frac{v^2 - u^2}{2a}$$

(2)

November 2018 – Paper 1F

(Total for Question 21 is 2 marks)

21 $q = \frac{p}{r} + s$



Make p the subject of this formula.

$$p = r(q - s)$$

Sample 1 – Paper 2F

(Total for Question 21 is 2 marks)

22 Make g the subject of the formula $f = 3g + 11$



$$g = \frac{f - 11}{3}$$

November 2023 – Paper 2F

(Total for Question 22 is 2 marks)

23 Make p the subject of the formula $d = 3p + 4$



$$p = \frac{d - 4}{3}$$

June 2022 – Paper 3F

(Total for Question 23 is 2 marks)

24 Make t the subject of the formula $y = \frac{t}{3} - 2a$



$$t = 3(y + 2a)$$

Specimen 2 – Paper 3F

(Total for Question 24 is 2 marks)

28 Make g the subject of the formula $T = \sqrt{\frac{g+6}{2}}$



$$g = 2T^2 - 6$$

May 2018 – Paper 3F

(Total for Question 28 is 3 marks)

29 Make h the subject of the formula.

$$p = \frac{h-5}{3}$$



$$h = 3p + 5$$

(2)

June 2024 – Paper 3F

(Total for Question 29 is 2 marks)

30 Make q the subject of $p = 6q + 7$

$$q = \frac{p-7}{6}$$

(2)

May 2020 – Paper 1F

(Total for Question 30 is 2 marks)