

Name

ANSWERS

Class



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Change the subject

(9 – 1) Topic booklet

Higher

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 1H question you are not allowed to use a calculator.
- If the question is a 2H or a 3H 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 Make g the subject of the formula $f = 3g + 11$



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

(2)

November 2023 – Paper 2H

(Total for Question 1 is 2 marks)

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



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

November 2022 – Paper 3H

(Total for Question 1 is 2 marks)

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



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

Specimen 1 – Paper 2H

(Total for Question 1 is 2 marks)

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

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

(2)

November 2018 – Paper 1H

(Total for Question 2 is 2 marks)

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



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

(2)

June 2022 – Paper 3H

(Total for Question 2 is 2 marks)

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



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

Specimen 2 – Paper 3H

(Total for Question 3 is 2 marks)

10 Make m the subject of $k = p + \frac{2m}{5}$



$$m = \frac{5(k - p)}{2}$$

November 2024 – Paper 3H

(Total for Question 10 is 3 marks)

10 Make k the subject of the formula $y = \sqrt{2m - k}$



$$k = 2m - y^2$$

November 2019 – Paper 2H

(Total for Question 10 is 2 marks)

13 $m = \sqrt{\frac{k^3 + 1}{4}}$

Make k the subject of the formula.

$$k = \sqrt[3]{4m^2 - 1}$$

Specimen 1 – Paper 1H

(Total for Question 13 is 3 marks)

- 14 Make v the subject of the formula $w = \frac{15(t - 2v)}{v}$



$$v = \frac{15t}{w+30}$$

(3)

June 2017 – Paper 3H

(Total for Question 14 is 3 marks)

15 Make m the subject of the formula $f = \frac{3m + 4}{m - 1}$



$$m = \frac{f+4}{f-3}$$

June 2019 – Paper 2H

(Total for Question 15 is 3 marks)
3 marks)

17 Make f the subject of the formula $d = \frac{3(1-f)}{f-4}$

$$f = \frac{3+4d}{d+3}$$

November 2020 – Paper 1H

(Total for Question 17 is 4 marks)

17 Make a the subject of $a + 3 = \frac{2a+7}{r}$

$$a = \frac{7-3r}{r-2}$$

Sample 1 – Paper 1H

(Total for Question 17 is 3 marks)

17 Make x the subject of the formula $y = \frac{4(2x - 7)}{5x + 3}$

$$x = \frac{-3y - 28}{5y - 8}$$

June 2023 – Paper 1H

(Total for Question 17 is 4 marks)