

Name

Class



www.MathsTeacherHub.com

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

November 2022 – Paper 3H

.....  
**(Total for Question 1 is 2 marks)**

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

Specimen 1 – Paper 2H

.....  
**(Total for Question 1 is 2 marks)**

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

.....  
(2)

November 2018 – Paper 1H

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

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

.....  
(2)

June 2022 – Paper 3H

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

---

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

.....  
Specimen 2 – Paper 3H

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

---

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

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.

Specimen 1 – Paper 1H

(Total for Question 13 is 3 marks)

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

June 2017 – Paper 3H

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

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

June 2019 – Paper 2H

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

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

November 2020 – Paper 1H

(Total for Question 17 is 4 marks)

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

Sample 1 – Paper 1H

(Total for Question 17 is 3 marks)