

Name:

Date:

Rearranging Harder Formulae

GCSE

Edexcel
Mathematics
Grade (9-1)

Mark

Score (%)

<hr/> 58

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Materials

For this paper you must have:

- Ruler
- Pencil, Rubber, Protractor and Compass
- Scientific calculator, which you are expected to use when appropriate

Instructions

- Answer all questions
- Answer questions in the space provided
- All working must be shown
- Do all rough work in this book. Cross out any rough work you don't want to be marked

Information

- The marks for the questions are shown in brackets

1 Rearrange the formula to work out l in terms of k .

$$k = 10 - 8l$$

.....
(Total for question 1 is 2 marks)

2 Rearrange the formula to work out a in terms of b and c .

$$4(2a + b) = c + b + a$$

.....
(Total for question 2 is 2 marks)

3 Rearrange the formula to work out x in terms of y .

$$2y = 8x + 3$$

.....
(Total for question 3 is 2 marks)

4 Rearrange the formula to work out q in terms of p and r .

$$p = \frac{r}{q + 1}$$

.....
(Total for question 4 is 2 marks)

5 Rearrange the formula to find n in terms of m .

$$m = -2(8 + n)$$

.....
(Total for question 5 is 2 marks)

6 Rearrange the formula to work out r in terms of q .

$$q = 2(8 - r) + 3$$

.....
(Total for question 6 is 2 marks)

7 Rearrange the formula to work out c in terms of a and b .

$$a = 2b - 3c$$

Leave
blank

.....
(Total for question 7 is 2 marks)

8 Rearrange the formula to work out b in terms of a .

$$a = 3(b - 6)$$

.....
(Total for question 8 is 2 marks)

9 Rearrange the formula to make r the subject.

$$A = \pi r^2$$

Leave
blank

.....
(Total for question 9 is 2 marks)

10 Rearrange the formula to make r the subject.

$$V = \frac{4}{3} \pi r^3$$

.....
(Total for question 10 is 2 marks)

11 Rearrange the formula to make u the subject

$$a = \frac{v - u}{t}$$

Leave
blank

.....
(Total for question 11 is 2 marks)

12 Rearrange the formula to make r the subject

$$V = \frac{1}{3} \pi r^2$$

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

13 Rearrange the formula to make a the subject.

$$v^2 = u^2 + 2as$$

Leave
blank

.....
(Total for question 13 is 3 marks)

14 Rearrange the formula to make u the subject.

$$s = \left(\frac{u+v}{2}\right)t$$

.....
(Total for question 14 is 3 marks)

15 Rearrange the formula to make a the subject

$$s = ut + \frac{1}{2} at^2$$

Leave
blank

.....
(Total for question 15 is 3 marks)

16 Rearrange the formula to make m the subject.

$$E_k = \frac{1}{2} mv^2$$

.....
(Total for question 16 is 2 marks)

17 Rearrange the formula to make e the subject

$$E_e = \frac{1}{2} ke^2$$

Leave
blank

.....
(Total for question 17 is 2 marks)

18 Rearrange the formula to make b the subject

$$A = \frac{1}{2} ab\sin(C)$$

.....
(Total for question 18 is 3 marks)

19 Rearrange the formula to make x the subject

$$2x + b = c(x - 2)$$

Leave
blank

.....
(Total for question 19 is 3 marks)

20 Rearrange the formula to make e the subject

$$e(4 + a) = b(e + 8)$$

.....
(Total for question 20 is 3 marks)

21 Rearrange the formula to make y the subject

$$x = \frac{y + 4}{y + 1}$$

Leave
blank

.....
(Total for question 21 is 3 marks)

22 Rearrange the formula to make w the subject

$$z = \frac{w + b}{w - f}$$

.....
(Total for question 22 is 3 marks)

23 Rearrange the formula to make y the subject

$$\frac{a}{b} = \frac{3y}{y+7}$$

Leave
blank

.....
(Total for question 23 is 3 marks)

24 Rearrange the formula to make z the subject

$$x = \frac{2 + 4yz}{4z - 2}$$

.....
(Total for question 23 is 3 marks)