

GCSE · Edexcel · Maths

L 2 hours



Exam Questions

Rearranging Formulas

Formulas where Subject Appears Once / Formulas where Subject Appears Twice

Total Marks	/102
Hard (13 questions)	/47
Medium (12 questions)	/30
Easy (13 questions)	/25

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Easy Questions

1 Make *h* the subject of the formula

$$t = \frac{gh}{10}$$

(2 marks)

2 Make *t* the subject of the formula w = 3t + 11

(2 marks)

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

(2 marks)

4 Make F the subject of the formula $C = \frac{5(F-32)}{9}$

(3 marks)

5 Make t the subject of the formula p = at - d

6 Make a the subject of d = g + 2ac

(2 marks)

7 Make a the subject of the formula M = ac - bd

(1 mark)

8 Make e the subject of the formula h = 3e + f

(2 marks)

9 Make t the subject of $c = t^3 - 8v$

(2 marks)

10 Rearrange y = 3x - 2 to make x the subject.

A.
$$x = \frac{y}{3} - 2$$

B.
$$x = \frac{y+2}{3}$$

C.
$$x = \frac{y-2}{3}$$

D.
$$x = \frac{y}{3} + 2$$

(1 mark)

11 Rearrange v = u + at to make t the subject of the formula.

12	Rearrange this formula to make	y the sub	ject.
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$$x = y^2 + 7$$

(2 marks)

13 Rearrange the equation to make *x* the subject.

$$y = 7x - 3$$

x =

Medium Questions

1 Make
$$y$$
 the subject of the formula $p = \sqrt{\frac{x+y}{5}}$

(3 marks)

2 Make *t* the subject of the formula
$$2(d-t) = 4t + 7$$

(3 marks)

3 Make
$$m$$
 the subject of the formula $v = \sqrt{\frac{2E}{m}}$

(3 marks)

4 Make
$$p$$
 the subject of the formula $y = 3p^2 - 4$

(3 marks)

$$5 m = \sqrt{\frac{k+1}{4}}$$

Make k the subject of the formula.

(3 marks)

6 Make m the subject of g - 3m = am + 5

(3 marks)

7 Make c the subject of $A = \frac{c}{V} - 5z$

(2 marks)

8 Make f the subject of $m = \sqrt{\frac{1}{3}ef}$

(2 marks)

9 Make *t* the subject of $s = \frac{1}{2} at^2$

10 Rearrange $y = \sqrt{w^3}$ to make w the subject.

- **A.** $w = y^6$
- **B.** $w = \sqrt[3]{y^2}$
- **C.** $w = \sqrt{y^3}$
- **D.** $w = y^5$

(1 mark)

11 Rearrange $a = \frac{b}{c} + 5$ to make c the subject.

(3 marks)

12 Use the formula $s = ut + \frac{1}{2}at^2$.

Make a the subject of the formula.

a =

Hard Questions

1 Make *y* the subject of the formula

$$t = \frac{2 - 3y}{y + 2}$$

(4 marks)

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

(3 marks)

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

(3 marks)

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

Make k the subject of the formula.

(3 marks)

5 Make
$$a$$
 the subject of the formula $p = \frac{3a+5}{4-a}$

(4 marks)

6 Make *t* the subject of the formula

$$p = \frac{3 - 2t}{4 + t}$$

(4 marks)

7 Make m the subject of

$$\frac{m}{v} - \frac{t}{b} = \frac{m - t}{R}$$

(4 marks)

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

(3 marks)

9 Make *t* the subject of
$$n^2 = \frac{4d + t^3}{t^3}$$

(4 marks)

10 Make
$$c$$
 the subject of the formula $p = \sqrt{\frac{ac+8}{3+c}}$

(4 marks)

11 Make *x* the subject of
$$y = \sqrt{\frac{x+1}{x-4}}$$

(4 marks)

12 Given that n > 0

make
$$n$$
 the subject of the formula $y = \frac{n^2 + d}{n^2}$

(4 marks)

13 Rearrange $y = \frac{1}{\sqrt{x+1}}$ to make x the subject.

(3 marks)