



THIRD SPACE
LEARNING

GCSE Exam Questions

Rearranging Equations | Algebra

GCSE Exam Questions: Rearranging Equations

- 1) Make x the subject of the formula:

$$y = 2x + 4$$

(2 marks)

- 2) Make s the subject of the formula:

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

(2 marks)

- 3) Make g the subject of the formula:

$$Y = \sqrt{\frac{g + 6}{5}}$$

(3 marks)

GCSE Exam Questions: Rearranging Fractions

- 4) Make v the subject of the formula:

$$W = \frac{20(t - 3v)}{v}$$

(5 marks)

- 5) Make t the subject of the formula:

$$K = \frac{2(t + 3)}{t - 3}$$

(5 marks)

GCSE Exam Questions: Rearranging Equations

6) Make x the subject of the formula:

$$\frac{x}{x+b} = \frac{a}{c}$$

(5 marks)

7) Make m the subject of the formula:

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

(6 marks)

GCSE Exam Questions: Rearranging Equations Answers

	Question	Answer	Marks
1)	Make x the subject of the formula: $y = 2x + 4$	$y - 4 = 2x$ $x = \frac{y - 4}{2}$	(1) (1)
2)	Make s the subject of the formula: $v^2 = u^2 + 2as$	$v^2 - u^2 = 2as$ $s = \frac{v^2 - u^2}{2a}$	(1) (1)
3)	Make g the subject of the formula: $Y = \sqrt{\frac{g + 6}{5}}$	$Y^2 = \frac{g + 6}{5}$ $5Y^2 = g + 6$ $g = 5Y^2 - 6$	(1) (1) (1)
4)	Make v the subject of the formula: $W = \frac{20(t - 3v)}{v}$	$vw = 20(t - 3v)$ $vw = 20t - 60v$ $vw + 60v = 20t$ $v(w + 60) = 20t$ $v = \frac{20t}{w + 60}$	(1) (1) (1) (1) (1)
5)	Make t the subject of the formula: $K = \frac{2(t + 3)}{t - 3}$	$k(t - 3) = 2(t + 3)$ $kt - 3k = 2t + 6$ $kt - 2t = 3k + 6$ $t(k - 2) = 3(k + 2)$ $t = \frac{3(k + 2)}{k - 2}$	(1) (1) (1) (1) (1)
6)	Make x the subject of the formula: $\frac{x}{x + b} = \frac{a}{c}$	$cx = a(x + b)$ $cx = ax + ab$ $cx - ax = ab$ $x(c - a) = ab$ $x = \frac{ab}{c - a}$	(1) (1) (1) (1) (1)
7)	Make m the subject of the formula: $\frac{m}{v} - \frac{t}{b} = \frac{m - t}{r}$	$\frac{bm - tv}{bv} = \frac{m - t}{r}$ oe $r(bm - tv) = bv(m - t)$ $bmr - rtv = bmv - btv$ $bmr - bmv = rtv - btv$ $m(br - bv) = tv(r - b)$ $m = \frac{tv(r - b)}{b(r - v)}$ oe	(1) (1) (1) (1) (1)

Where to go next?

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