



THIRD SPACE
LEARNING

GCSE Exam Questions

Changing the Subject of a Formula
| Algebra

GCSE Exam Questions: Changing the Subject of a Formula

- 1) (a) Make b the subject of $a = b + 5$

(1)

- (b) Work out the value of b when $a = 9$

(2)
(3 marks)

- 2) Rearrange the following equations to make x the subject.

- (a) $5x = 8$

(1)

- (b) $3x = 2y$

(1)

- (c) $\frac{7}{x} = 3y$

(1)

- (d) $12 - x = b$

(1)
(4 marks)

GCSE Exam Questions: Changing the Subject of a Formula

- 3) Make h the subject of the formula $4(g - h) = 5h - 4$

(3 marks)

- 4) Make d the subject of $e = \frac{d - 4}{d + 3}$

(4 marks)

GCSE Exam Questions: Changing the Subject of a Formula Answers

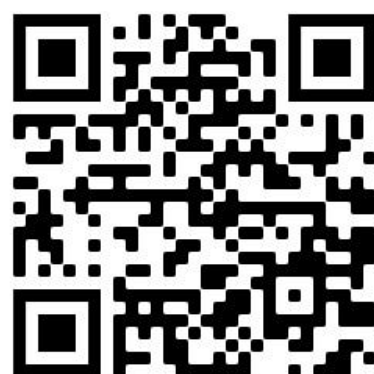
| | Question | Answer | Marks |
|---------------|---|--|--|
| 1) (a) | Make b the subject of $a = b + 5$ | (a) $b = a - 5$ | (1) |
| (b) | Work out the value of b when $a = 9$ | (b) $b = 9 - 5$ $b = 4$ | (1) (1) |
| 2) (a) | Rearrange the following equations to make x the subject. $5x = 8$ | (a) $x = \frac{8}{5}$ | (1) |
| (b) | $3x = 2y$ | (b) $x = \frac{2y}{3}$ or $x = \frac{2}{3}y$ | (1) |
| (c) | $\frac{7}{x} = 3y$ | (c) $x = \frac{7}{3y}$ | (1) |
| (d) | $12 - x = b$ | (d) $x = 12 - b$ | (1) |
| 3) | Make h the subject of the formula $4(g - h) = 5h - 4$ | $4g - 4h = 5h - 4$ $4g + 4 = 5h + 4h$ or $4g + 4 = 9h$ $h = \frac{4g + 4}{9}$ oe | (1) (1) (1) |
| 4) | Make d the subject of $e = \frac{d - 4}{d + 3}$ | $e(d + 3) = d - 4$ $de + 3e = d - 4$ or $de - d = -4 - 3e$ $d(e - 1) = -4 - 3e$ $d = \frac{-4 - 3e}{e - 1}$ oe Alternatively: $e(d + 3) = d - 4$ $de + 3e = d - 4$ or $3e + 4 = d - de$ $3e + 4 = d(1 - e)$ $d = \frac{3e + 4}{1 - e}$ | (1) (1) (1) (1) (1) (1) (1) (1) |

Where to go next?

For more diagnostic questions, and GCSE maths revision resources and worksheets to support students in fixing any misconceptions take a look at the free Third Space Learning [GCSE maths revision](#) pages.

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