

Rearranging Harder Formulae

For AQA GCSE Mathematics (8300) • Higher tier

Name _____

Total marks: **25**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

- 1** Rearrange $h = 2g^2$ to make g the subject.
Circle your answer.

[1 mark]

$$g = \frac{\sqrt{h}}{2}$$

$$g = \sqrt{\frac{h}{2}}$$

$$g = \sqrt{2h}$$

$$g = \frac{h^2}{2}$$

- 2** Rearrange $P = 4d - 3t$ to make t the subject.

[2 marks]

Answer $t =$ _____

- 3** Make r the subject of $V = \frac{1}{3}\pi r^2 h$

[2 marks]

Answer $r =$ _____

4 Make L the subject of $T = 2\pi\sqrt{\frac{L}{g}}$

[3 marks]

Answer $L =$ _____

5 Make x the subject of $ax + b = cx + d$

[3 marks]

Answer $x =$ _____

6 Make f the subject of $\frac{1}{u} + \frac{1}{v} = \frac{1}{f}$

[3 marks]

Answer $f =$ _____

7 Rearrange $w = \frac{2x}{x-5}$ to make x the subject.

[3 marks]

Answer $x =$ _____

8 Rearrange $\frac{x+1}{x-4} = \frac{y}{2}$ to make x the subject.

[4 marks]

Answer $x =$ _____

9 Rearrange $t(5-x) = 2(x+t^2)$ to make x the subject.

[4 marks]

Answer $x =$ _____