

WJEC MATHEMATICS

HIGHER
3 TIER TOPICS

REARRANGING

@MrGoreMaths.

Spec 1 – Maths – P1

(b) Given that $h^2 = a^2 + b^2$, then b is equal to

$$h - a \quad \pm \sqrt{(h^2 - a^2)} \quad h^4 - a^4 \quad \frac{(h^2 - a^2)}{2} \quad \frac{\pm \sqrt{(h^2 - a^2)}}{2}$$

[1]

Spec 1 – Maths – P2

10. (a) Make c the subject of the following formula.

[2]

$$\frac{1}{a} = \frac{1}{b} + \frac{1}{c}$$

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Nov 2016 – Maths – P1

(a) Make m the subject of the formula $y = 6m + 7$.

[2]

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Nov 2016 – Maths – P2

13. Make x the subject of the following formula. [4]

$$a(x - b) = x(c - d)$$

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June 2017 – Maths – P2

12. Make c the subject of the following formula. [5]
Give your answer in its simplest form.

$$c - 5 = \frac{3c - 7}{d}$$

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Spec 1 – Numeracy – P2

6. NwyCymru gas company uses the following formula to calculate how much to charge its customers:

$$\text{charge (in pence)} = (U \times 11.546 + D \times 31.48) \times 1.05$$

The number of units of gas used by a customer is **U** and the number of days in the billing period is **D**.

A customer was charged £165.53 over a billing period of 90 days.
Calculate the number of gas units this customer used during this period. [4]

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Nov 2016 – Numeracy – P2

1. (a) The Headteacher of Ysgol Bro Gwyn investigates building a new bike shed.

Bike sheds are built on a rectangular base of width x metres and length y metres.

The Headteacher is given a formula for working out the number of bikes, b , that can be stored in a bike shed that has a base of width x metres and length y metres.

He is told the formula only works when

- x and y are whole numbers
- x is greater than 3
- y is greater than 5

The formula is as follows:

$$b = \frac{6xy}{5}$$

According to the details the Headteacher has been given, what is the formula for calculating the length, y metres, of a bike shed x metres wide that can hold b bikes?

Circle your answer.

[1]

$$y = \frac{b-5}{6x}$$

$$x = \frac{6b}{5y}$$

$$y = \frac{b+5}{6x}$$

$$y = \frac{5b}{6x}$$

$$y = \frac{6x}{5b}$$