Monday (hard) – LO: to use and calculate formulae.

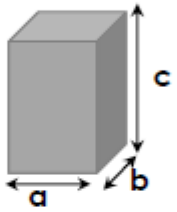
Varied fluency

9a. Match each box on the left to the correct label.

5(g – m)	formula
s = d ÷ t	expression
C = $2r^2$	calculation
72 = (12 x 3) x 2	

VF

10a. Work out the volume (V) of the shape below using formula V = a x b x c, if a = 3cm, b = 2cm and c = 5.5 cm.



Not to scale

VF

11a. Circle the correct formula for doubling a number and finding 45%.

$a = 2n \times 0.45$

$a = n \times 2.45$

$a = \frac{2n}{0.45}$

VF

12a. To calculate the bmi of a person, you can use their weight in kilograms and height in metres.

Expressed as the formula:

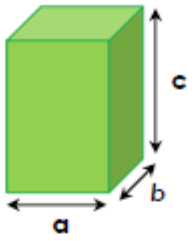
$$bmi = \frac{w}{h^2}$$

If someone is 2m tall (h) and weighs 92 kg (w), what is their bmi?

VF

Reasoning and problem solving

7a. Write a formula for the volume of the shape.



Use your formula to work out the area if a = 6cm, b = $\frac{a}{2}$, c = 2a.

Not to scale

PS

8a. Here is a formula for the minimum amount of exercise in minutes (e) that a puppy needs each day.

$$e = \frac{(w + a)}{2}$$

A puppy weighs 8kg (w) and is 10 months old (a). Her owner plans to walk her for 10 minutes each day.

Is this enough? Convince me!

R

9a. The height to set a desk (D) for optimum working conditions is half a person's height (h) then subtract 30.5cm.

Which two formulae represents this?

A. $D = (h \div 2) - 30.5$

B. $D = \frac{h - 30.5}{2}$

c. $D = \frac{h}{2} - 30.5$

Explain how you know.

R