

11th June

Higher 5-a-day



Corbettmaths

Write down the equation of the line that passes through (2, 6) and (6, 9)

$$\frac{9-6}{6-2} = \frac{3}{4}$$

$$y = \frac{3}{4}x + c$$

$$9 = 4.5 + c$$

$$c = 4.5$$

$$y = \frac{3}{4}x + \frac{9}{2}$$

What is the size of each exterior angle of a regular 12-sided polygon?

$$360 \div 12 = 30^\circ$$

A particle travels at 8.1×10^3 m/s to the nearest 10 m/s.

$$LB \ 8095 \quad UB \ 8105$$

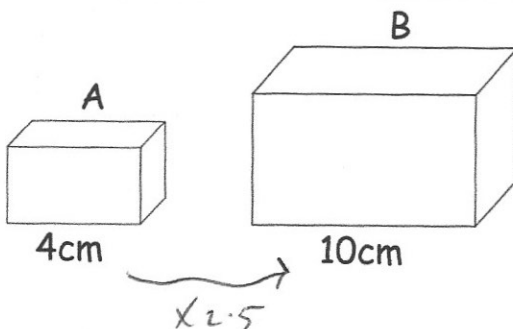
The particle travels for 20 seconds, to the nearest second.

$$LB \ 19.5 \quad UB \ 20.5$$

Work out the smallest possible distance travelled.

$$19.5 \times 8095$$

$$157852.5 \text{ m}$$



Cuboids A and B are similar.

The volume of cuboid B is 500 cm^3 .

Work out the volume of cuboid A.

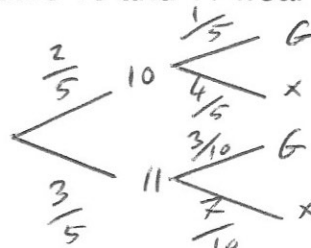
$$500 \div 2.5^3 = 32 \text{ cm}^3$$

In a school, the ratio of year 10 to year 11 students is 2:3

20% of the year 10 students wear glasses.

70% of the year 11 students do not wear glasses.

What percentage of the students in years 10 and 11 wear glasses?



$$\left(\frac{2}{5} \times \frac{1}{5}\right) + \left(\frac{3}{5} \times \frac{3}{10}\right) = \frac{13}{50} \quad 26\%$$