

Numeracy4All Tips

Shape, Space and Measure

Conversions

10 mm = 1cm
100cm = 1m
1000m = 1km

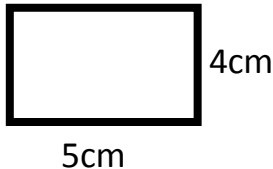
60 Seconds = 1 Minute
60 Minutes = 1 Hour
24 Hours = 1 Day

1000g = 1kg
1000ml = 1l

12 Months in 1 Year

Perimeter

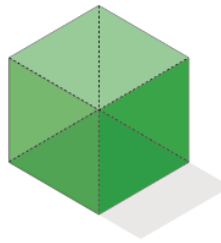
Is the outside of a shape. Add the edges together.



$$P = 5 + 4 + 5 + 4 = 18\text{cm}$$

Nets

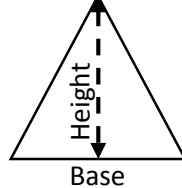
Unfolded
3D shapes



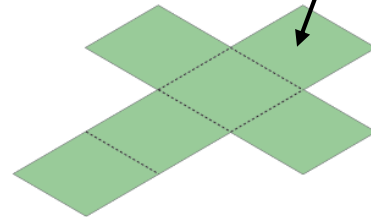
Cube

Surface Area

The area of each face added together.



$$\text{Area of Triangle} = \frac{1}{2} \times \text{base} \times \text{height}$$



Net of a cube

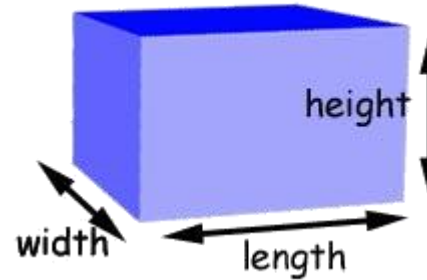
Area

Is the inside of a shape.

Area of **Rectangle** = length \times width

Volume

volume = length \times width \times height

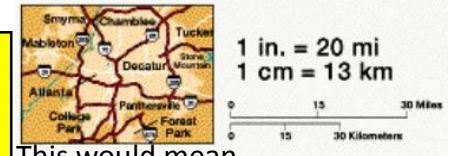


Enlargement

Scale Factor (S.f.) is what you multiply every length by.
S.f. of 2 – double each length
S.f. of 3 – multiply each length by 3
S.f. of $\frac{1}{2}$ – half each length

Scales

Multiply the length you measure by the appropriate miles or km



This would mean

$$2\text{cm} = 26\text{km} \quad 10\text{inches} = 200\text{miles}$$



Algebra

$$ab = a \times b$$

$$a^2 = a \times a$$

$$\frac{a}{b} = a \div b$$

Substitution into formulas

Swap the letters for the numbers you know.

E.g. If $x = 3$ what is y when $y = 2x + 4$

$$y = (2 \times 3) + 4$$

$$y = 6 + 4$$

$$y = 10$$

Speed, Distance and Time Formulas

Speed = Distance \div Time

Time = Distance \div Speed

Distance = Speed \times Time

