



Week 1 – Volume & Surface Area

Volume Of A Cuboid

Volume of cuboid = length × width × height

Surface Area Of A Cuboid

Surface area of a cuboid is the sum of the object's faces' individual areas

Volume Of A Prism

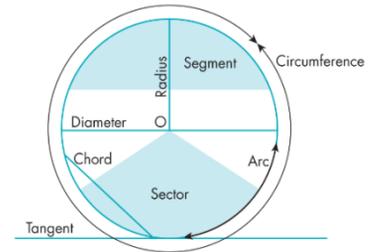
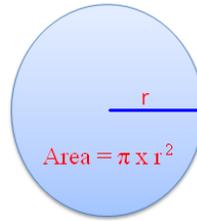
volume of prism = area of cross-section × length

Surface Area Of A Prism

Surface area of a prism is the sum of the object's faces' individual areas

Week 2 – Circles

$C = \pi d$



Week 3 – Percentages

A percentage is a proportion that shows a number as parts per hundred.

Percentages are a way of expressing numbers as part of a whole.

Percentages of amounts can be calculated by writing the percentage as a fraction or decimal and then multiplying it by the amount in question.

To write one number as a percentage of another, create an equivalent fraction where the denominator is 100.

Percentage change is calculated by dividing the difference between the two amounts by the original amount.

Week 4 – Ratio

To share a ratio:

1. Add all the numbers together
2. Divide the amount by the total amount of ratios
3. Multiply your answer to find each ratios value

£40 shared in the ratio 3:1

Total ratio is 4, therefore $40/4 = 10$.

$3 \times 10 : 1 \times 10 = \text{£}30 : \text{£}10$

When a ratio is written in fraction form, a ratio should be simplified

Week 5 – Factorisation & Expansion

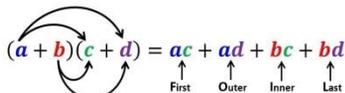
Quadratic Expressions

A quadratic equation contains terms up to x^2 . All quadratic equations can be written in the form

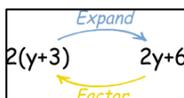
$ax^2 + bx + c = 0$

where , and are numbers (a cannot be equal to 0, but b and c can be)

Expand the product of 2 binomials



Factorise an expression



Week 6 – Interpreting Data

Mean – The mean of a set of data is the sum of all the values in the set divided by the total number of values in the set

Mode – The mode is the value that occurs most often in a set of data

Median – The median is the middle value of a list of values when they are put in order of size

Range – The range for a set of data is the difference between the highest and lowest values

Graphs can have positive, negative or no correlation

Positive correlation is when one variable increases the other does too

Negative correlation is when one variable increases, the other decreases

No correlation means there is no connection between the variables