REMEMBER TO ROUND THE DECIMALS!!!

E.g. 1.27969 would round to 1.28

Similarity and Congruence

Terms	
Congruent Shapes	Similar shapes that have been moved in some way
Rotation	The shape has been turned over
Reflection	The shape has been flipped over as if it was reflected in a mirror
Transl-ation	The shape keeps its same orientation, but it has been simply moved

Radicals and Pythagoras

Pythagoras Theorem: $a^2 + b^2 = c^2$

Statistics

Types of Data	
Catego-rical	A collection of information that is divided into groups.
Numerical	Data in the form of numbers.

Terms	
Range	Biggest number - smallest number
Terms	Sum of all values divided by the number of values.
Median	The middle number of a numerical data set. If there are 2 medians use this formula: (a+b) **/** 2
Mean	Sum of all values divided by the number of values.
Mode	The number with the highest frequency (most occurring).

/ = divide

Probability

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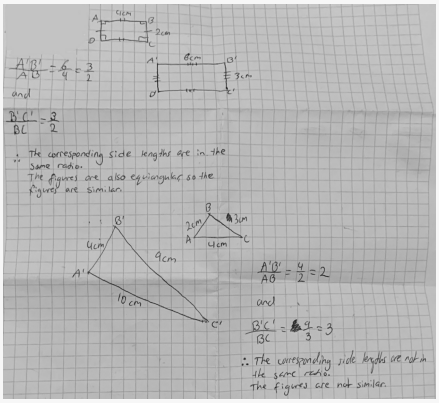
Similarity and Congruence



A'B' / AB

B'C' / BC

Coordinate Geometry

Distance Formula:	$d = \sqrt{(x2 - x1)^2 + (y2 - y1)^2}$
Midpoint Formula:	((x1 + x2) / 2 , (y1 + y2) / 2)
Gradient Formula:	y2 - y1 / x2 - x1

/ = fraction (divide)

Distance Formula

Distance formula

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

d = distance
(x_1, y_1) = coordinates of the first point
(x_2, y_2) = coordinates of the second point

Midpoint Formula

The Midpoint Formula

$$M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$$

Where:
M = Midpoint
x_1, x_2 = x-coordinates
y_1, y_2 = y-coordinates

Gradient Formula

Slope of a line

$$m = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$$

m = slope
(x_1, y_1) = coordinates of first point in the line
(x_2, y_2) = coordinates of second point in the line

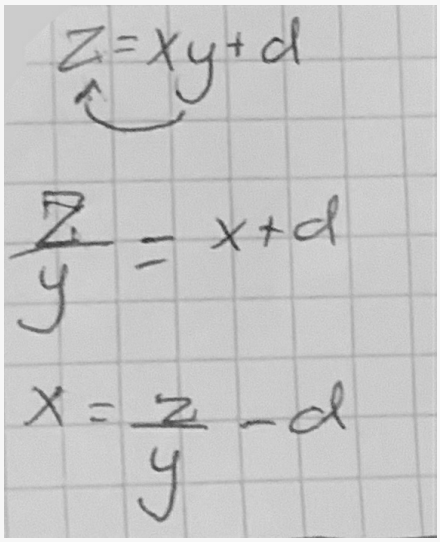
Formulae

a = 10, b = 5, c = 15

Find d if d = ab + c

d = 10 x 5 + 15 = 65

Formulae



Trigonometry

	Sine **O/H**
θ = Delta	**C**osine **A/H**
	Tangent **O/A**

When finding **θ** (Delta) you use **Sin^{-1}**, **Cos^{-1} and Tan^{-1}**. When you type it into the calculator press shift.

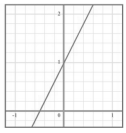
Graphing Lines From Equations

$y = mx + c$ is the general equation of any straight line where m is the **gradient** of the line (how steep the line is) and c is the **y-intercept** (the point in which the line crosses the y-axis). $y = mx + c$ is a **linear** equation.

E.g.

Let's look at the line $y = 2x + 1$.

This has a **gradient** of **2** and a y-intercept of **1**, the coordinate (0, 1).



y = mx + c

Measurement

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