

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
Translation	The shape keeps its same orientation, but it has been simply moved

Probability

Radicals and Pythagoras

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

Statistics

Types of Data

Categorical	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



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cheatography.com/trycryrepeat/

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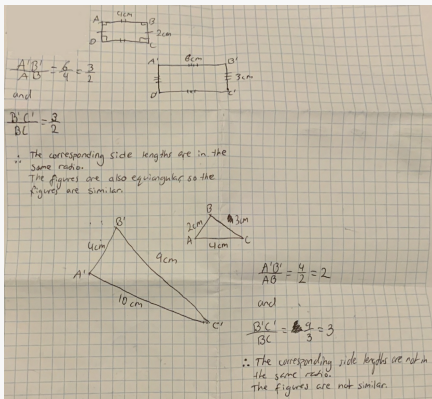
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Similarity and Congruence



$$\frac{A'B'}{AB}$$

$$\frac{B'C'}{BC}$$

Coordinate Geometry

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

Formula: $1)^2$

Midpoint $((x_1 + x_2) / 2, (y_1 + y_2) / 2)$

Formula:

Gradient $y_2 - y_1 / x_2 - x_1$

Formula:

/ = 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, y_1 = x-coordinates
 x_2, 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 $d = ab + c$

$$d = 10 \times 5 + 15 = 65$$

Formulae

$$Z = xy + d$$

$$\frac{Z}{y} = x + d$$

$$x = \frac{Z}{y} - d$$

Trigonometry

Sine O/H

$\theta = \Delta$

Cosine 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.

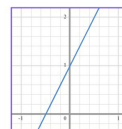
Graphing Lines From Equations

$y = mx + c$ 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