

Transformations and constructions

Transformations – moves a shape to a different position

Reflection, rotations, translations and enlargements

Constructions – accurate drawings made with a ruler and a pair of compasses

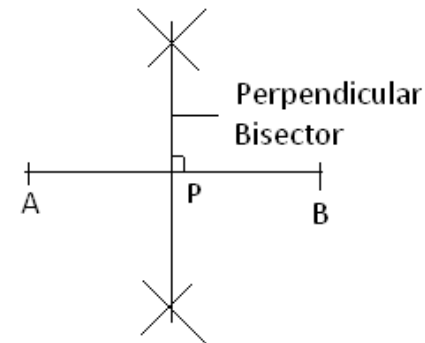
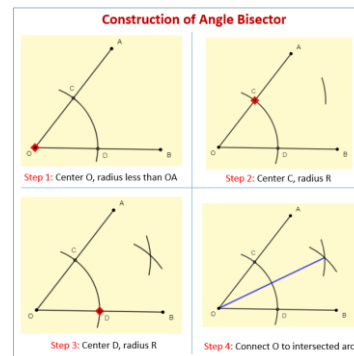
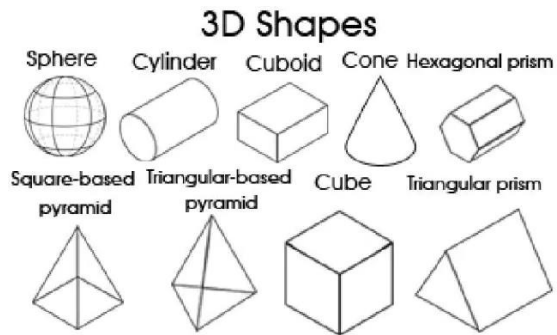
Angle bisector – cuts an angle exactly in half

Perpendicular bisector – cuts a line in half at right angles

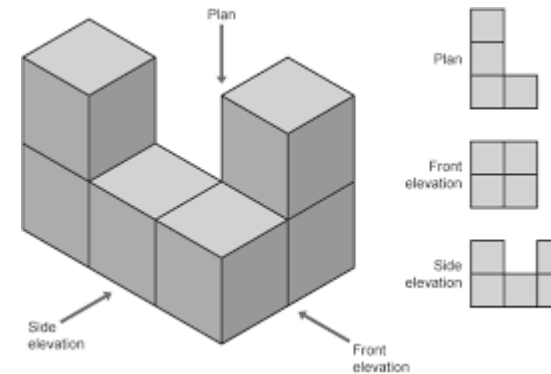
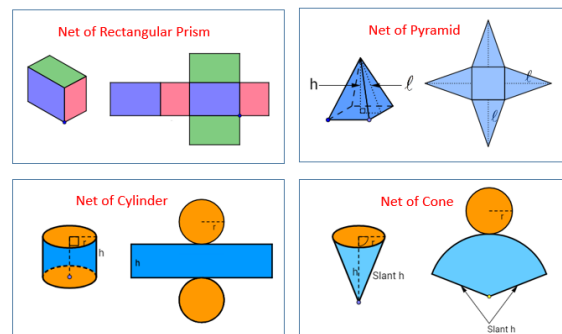
Locus – a set of points that obey a given rule

Region – an area bounded by limiting lines

Bearing – an angle measured in degrees clockwise from north and always written using 3 digits



Nets of Solids



Geometry – Bearings EZY MATHS

Angle clockwise from North: 075°

Always 3 digits: $75^\circ \rightarrow 075^\circ$, $4^\circ \rightarrow 004^\circ$

Sentence Structure Important: The bearing of B from A is 075°

Lines North are Parallel

Co-interior Angles: $75^\circ + \theta = 180^\circ$, $\theta = 180^\circ - 75^\circ = 105^\circ$

Angles around a point: $105^\circ + \phi = 360^\circ$, $\phi = 360^\circ - 105^\circ = 255^\circ$, The bearing of A from B is 255°

$\theta = 180^\circ - 75^\circ = 105^\circ$

$\phi = 360^\circ - 105^\circ = 255^\circ$

The bearing of A from B is 255°

Transformations, Congruence and Similarity www.cazoommaths.com

Rotations
Object A and image B remain congruent

Reflections
Object A and image B remain congruent

Translations
Object A and image B remain congruent

Enlargements
Object A and image B are similar