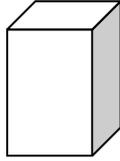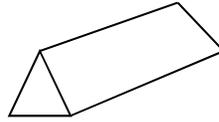# 5.3 Geometric Solids

PRISMS

Formed by taking a 2D object and_____ it to make a 3D solid.

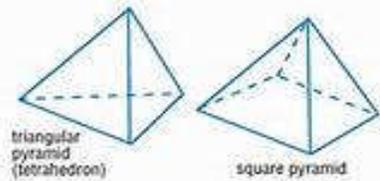Square Prism   Triangular base Prism

Note: The prism is named after the shape of the _____ not the _____

Properties of Prisms:

- has _____ that are parallel and congruent
- the _____ are perpendicular to the _____
- the _____ is the length of one of the _____

PYRAMIDS
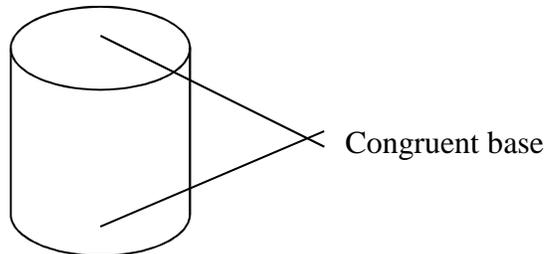
The Pyramid is named after the shape

of _____

Properties of Pyramids

- a _____ makes the base
- the Lateral Faces are _____
- the height of each lateral face is called the _____
- a pyramid is right when the height from the _____ touches the base at 90°

CYLINDERS

Generated by taking a _____

and dragging it to make a 3D solid;

or by rotating a _____.

Congruent base

Note: Cylinders can either be _____ or _____.

Properties of Cylinders

- two discs with the same radius make the _____
- the radius of the base is the radius of the _____
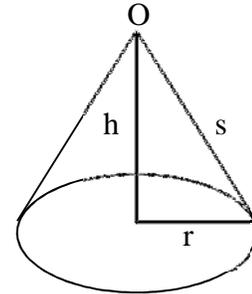- the height is the distance between the _____

CONES

Generated by rotating a _____ around one of its legs.

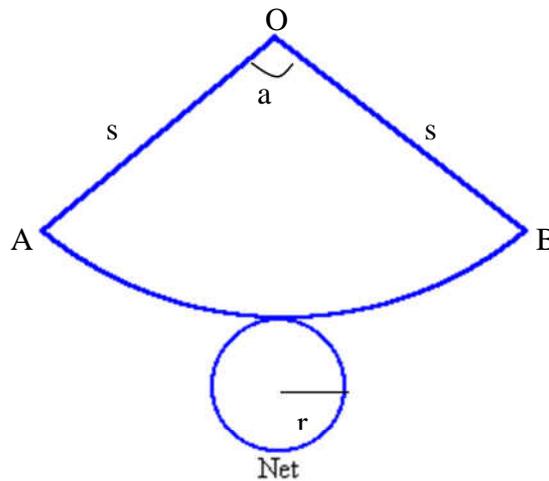It is a curved solid that ends at an _____.

Properties of Cones

- May or may not have a _____
- Curved surface is called _____
- The _____ is on the lateral surface
- The _____ is the perpendicular distance from apex to base

Note: We can use **Pythagorean Theorem** to figure out the radius, height or slant height.
$s^2 = h^2 + r^2$
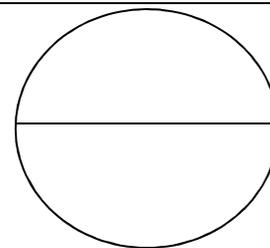
Net of a Cone:

$$\frac{a}{360°} = \frac{mAB}{2\pi s}$$

ALSO

$$\frac{a}{360°} = \frac{r}{s}$$

SPHERES

Generated by rotating a _____ around its diameter.
All points on its surface are equidistant from the centre.

Properties of Sphere
- any segment joining the centre of the sphere to the surface is called the _____ .
- Any segment that connects 2 points on the surface of the sphere AND goes through the centre is the _____.