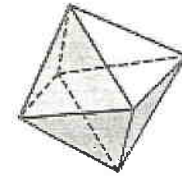


Polyhedron – A closed solid formed by polygons.

Face – polygonal surface.

Edge – line where two faces meet.

Vertex – point of intersection of 3 or more edges



Regular octahedron

Naming Polyhedrons

- Based on the number of faces (except for prisms and pyramids which are named for their base)
- Use a prefix like with polygons except for tetrahedron which has 4 faces.

Regular Polyhedron

- Faces are Regular polygons.
- Faces are congruent to each other.
- Faces meet at each vertex in exactly the same way.



Regular tetrahedron

Special Polyhedrons

Prism

- Has two bases that are congruent and parallel polygons.
- All other faces are called lateral faces.
- Lateral face meet at lateral edges.



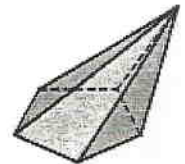
Right Prism – Lateral faces are perp. **Oblique Prism** – Not perp.

Altitude – Any perp segment from one base to the plane of the other base.

Height – The length of the altitude.

Pyramid

- Has one base
- Lateral faces meet at one point called the vertex.



Other Geometric Solids

Cylinder – has two congruent circular bases with a curved lateral surface.

Axis – the segment connecting the center of the bases.

Radius – the radius of a base.

Right Cylinder – the axis is perp to each base.

Oblique Cylinder – Not perp.

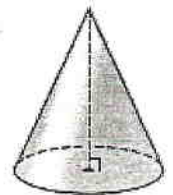


Cone – has _____ circular base and a curved lateral surface.

Vertex – the point furthest from the base.

Altitude – the perp segment from the vertex to the plane of the base.

Right Cone – the altitude passes through the center of the base. **Oblique Cone** – Not perp



Sphere – the set of all points in space at a given distance from a given point.

called Radius called center

Hemisphere – half of a sphere and its circular base.

Great Circle – the circle that encloses the base of a hemisphere.

