Reteaching Page
## 10.6 – Solid Figures

A polyhedron is a solid figure. All of the flat surfaces of a polyhedron are faces, but there are 1 or 2 **special faces** to consider. Polyhedrons are made from a base (pick a shape) and either triangles or rectangles.

   Prisms – 2 congruent parallel bases and a rectangle for each side of the base.

   Pyramids - 1 base and a triangle for each side of the base.

Polyhedrons are named for their base and type. When you look at the figure on the right you notice is has 1 rectangle and 4 triangles. The triangles (and the point on top) tell you that this shape is a pyramid. The rectangle is the base… This is a **rectangular pyramid**.
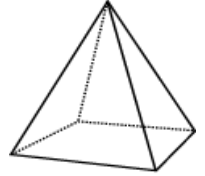
Now we see a rectangular prism. Notice the differences between the rectangular pyramid above and the **rectangular prism** shown here.
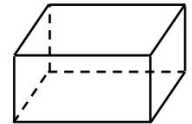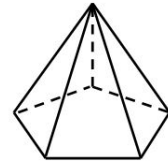
Polyhedrons have some other features that you will need to be aware of. Take a look at the pentagonal prism and pyramid below.
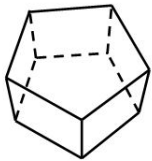
Faces are the flat surfaces.
Edges are the lines where two faces meet.
A **vertex** is the point where 3 edges meet.

Take a moment to draw over one edge and one vertex from each figure.

To answer questions regarding faces, edges and vertices of polyhedrons, you can either deconstruct the polyhedron, or use a simple formula. Examine the formulas and chart below. Don't try to memorize the answers to the chart on the right, instead, examine how the formulas are applied. Make **your own** polyhedron chart and use the formulas to fill it in.

Polyhedron Formulas

	Prisms	Pyramids
Faces	name + 2	name + 1
Edges	name * 3	name * 2
Vertices	name * 2	name + 1

Polyhedrons

	Faces	Edges	Vertices
Triangular Pyramid	4	6	4
Triangular Prism	5	9	6
Rectangular Pyramid	5	8	5
Rectangular Prism	6	12	8
Pentagonal Pyramid	6	10	6
Pentagonal Prism	7	15	10
Hexagonal Pyramid	7	12	7
Hexagonal Prism	8	18	12