$\qquad$
Module 10 Coordinate Geometry and Spatial Visualization Lesson 4 Three-Dimensional Shapes

## Set 1

1) How many faces, edges, and vertices does the solid have?


7 faces
15 edges
10 vertices

Name the solid from problem one. Give all names that apply. Explain how you determined the names.

All of its faces are polygons, so it is a polyhedron. It has two parallel bases that appear to be congruent, so it appears to be a prism. The bases are pentagons, so it is a pentagonal prism.
3) Describe the faces of a pyramid. When are all the faces triangles?

The lateral faces of a pyramid are always triangles. They meet at a common vertex. The base can be any polygon. All faces are triangles when the base is a triangle. In that case, the pyramid is a triangular pyramid.

## Set 2

(1) Classify each solid. Give all names that apply.


- Polyhedron, hexahedron (appears to be a cube)
- Cylinder
- Cone
(2) Classify each solid. Give all names that apply.

- Sphere
- Polyhedron, rectangular pyramid (appears to be a square pyramid)
- Polyhedron, rectangular prism


