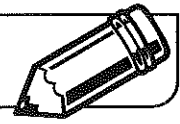
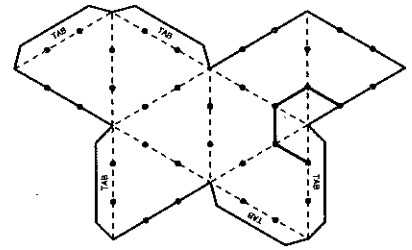


LESSON
11·2
Exploring Truncated Polyhedrons


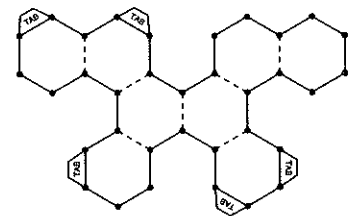
Truncated polyhedrons are formed by shortening the edges of the solid and cutting off the vertices. Follow the steps below to make models of an octahedron and a truncated octahedron.

Part 1: Octahedrons

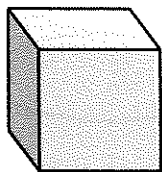
1. Use a centimeter ruler to mark dots on the lines of the pattern on *Math Masters*, page 330 so that the lines are divided into thirds.
2. Use a colored pencil or marker to connect the dots to form triangles around the vertices of the octahedron.
3. Cut out and assemble the octahedron model.
4. Hold the model so that a vertex is facing you. What shape is formed by the colored lines? _____


Part 2: Truncated Octahedrons

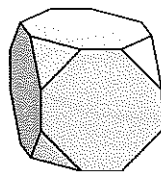
5. Repeat steps 1 and 2 with your second copy of the octahedron pattern.
6. Cut out the pattern. Then cut along the colored lines. You will cut off the vertices and parts of the tabs. Assemble the model.
7. What two shapes are contained in the model?



8. What shapes are contained in a truncated hexahedron?

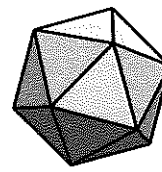


Hexahedron

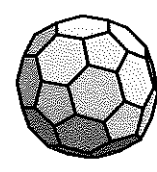


Truncated Hexahedron

9. What shapes are contained in a truncated icosahedron?



Icosahedron



Truncated Icosahedron