

# 11.5

## Exploring the Platonic Solids

► **GOAL:** Investigate properties of the Platonic solids.

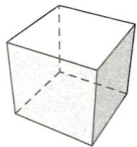
1. The five Platonic solids are shown on this page, along with their nets. Fill out the table below to describe some of the properties of these solids. Some of the table has been filled in for you.

### At-Home Help

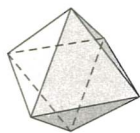
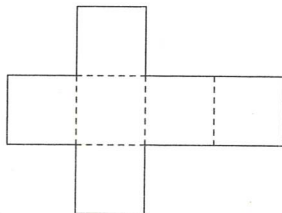
A **polyhedron** is a 3-D shape that has polygons as its faces.

A **regular polygon** is a polygon that has all sides equal and all angles equal.

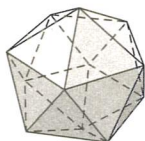
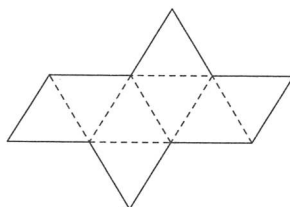
A **Platonic solid** is a polyhedron with faces that are all congruent regular polygons. There are only five Platonic solids. Platonic solids can be made from equilateral triangles, squares, and regular pentagons.



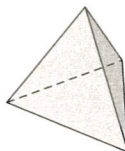
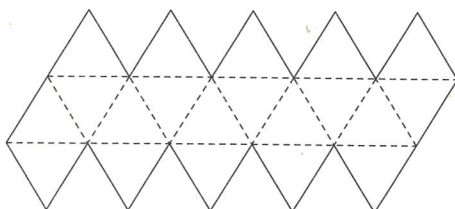
cube



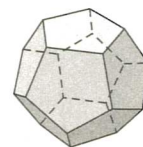
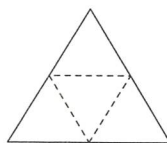
octahedron



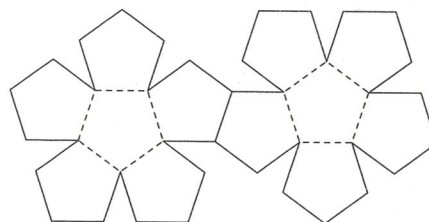
icosahedron



tetrahedron



dodecahedron



Polyhedron	Type of polygon	Number of faces (in total)	Number of vertices (in total)	Number of edges (in total)	Number of faces (at each vertex)
Tetrahedron	triangle				
Octahedron					4
Icosahedron		20		30	
Cube					
Dodecahedron			20	30	