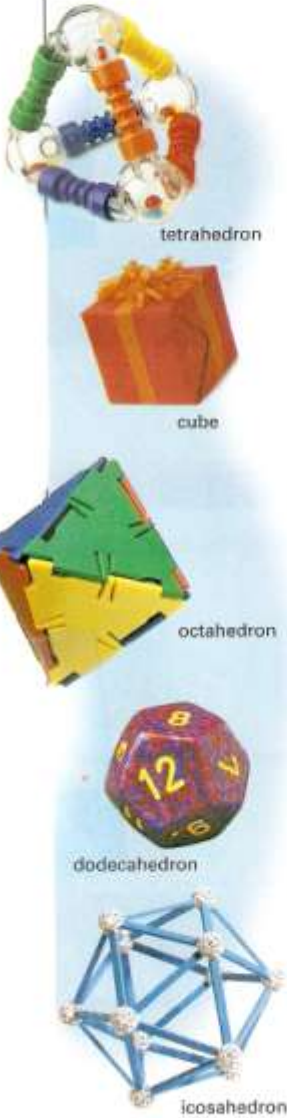




BUILDING PLATONIC SOLIDS

A **regular polyhedron** has congruent regular polygons as faces, with the same number of faces meeting at each vertex. There are exactly five different convex regular polyhedra, shown below. Because the Greek mathematician Plato proved that only these five exist, they are also known as the **Platonic solids**. Polyhedra are named for the number of faces they have.



Tetrahedron
(4 faces)



Hexahedron (cube)
(6 faces)



Octahedron
(8 faces)



Dodecahedron
(12 faces)

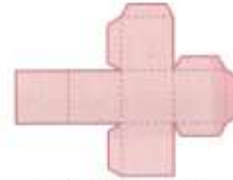


Icosahedron
(20 faces)

1. The patterns at right are nets for the Platonic solids. Enlarge and copy the nets onto a sturdy material such as poster board or cardboard.

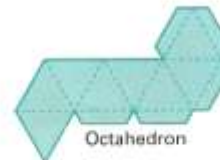


Tetrahedron



Hexahedron (cube)

2. Cut out the nets and fold along all of the dotted lines. You may wish to color the faces or decorate them in some way.



Octahedron

3. Use tape or glue to assemble each polyhedron.



Dodecahedron

30pts.



Icosahedron