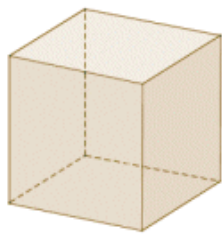


Investigating 3-D Shapes

There are five Plato's solids – the tetrahedron, cube, octahedron, dodecahedron and icosahedron. They all have faces which are regular shapes.



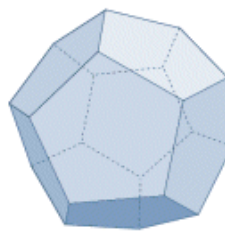
Tetrahedron



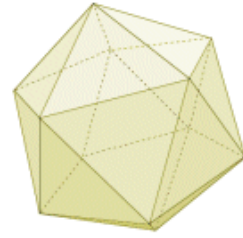
Hexahedron



Octahedron



Dodecahedron



Icosahedron

A 3-D shape has faces (surfaces), vertices (corners) and edges. Complete the table for the five 3-D shapes given.

3-D Shape	Shape of Face	No. of Faces	No. of Vertices	No. of Edges	Faces + Vertices
Tetrahedron					
Cube					
Octahedron					
Dodecahedron					
Icosahedron					

What can patterns can you see in the table?

EULER'S FORMULA

Investigate whether Euler's formula is true for other 3D shapes too.