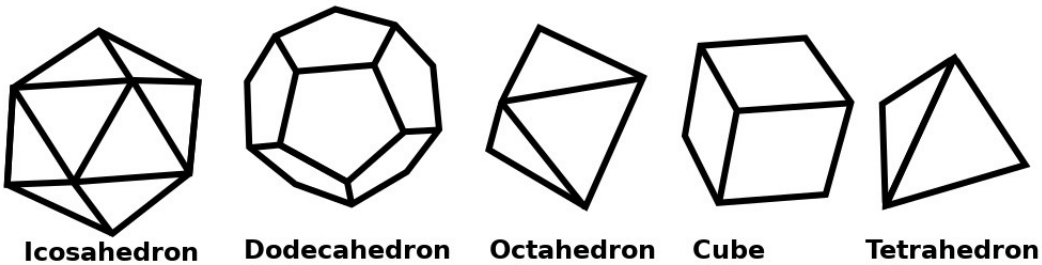
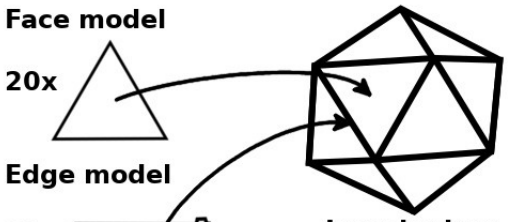
F + V = E + 2

The Platonic Solids



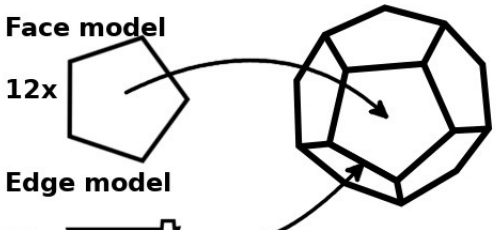
Icosahedron	Dodecahedron	Octahedron	Cube	Tetrahedron
20 Faces	12 Faces	8 Faces	6 Faces	4 Faces
12 Vertices	20 Vertices	6 Vertices	8 Vertices	4 Vertices
30 Edges	30 Edges	12 Edges	12 Edges	6 Edges



Edge length approx 53mm

{3, 5} Five triangle faces
or five 60° edges
at each vertex

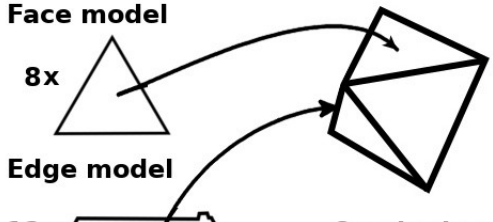
Icosahedron
20 Faces
12 Vertices
30 Edges



Edge length approx 36mm

{5, 3} Three pentagon faces
or three 108° edges
at each vertex

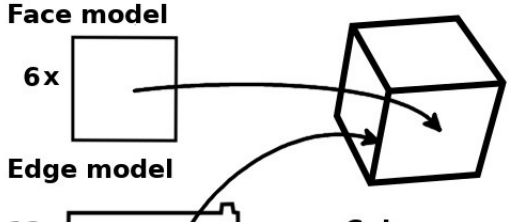
Dodecahedron
12 Faces
20 Vertices
30 Edges



Edge length approx 71mm

{3, 4} Four triangle faces
or four 60° edges
at each vertex

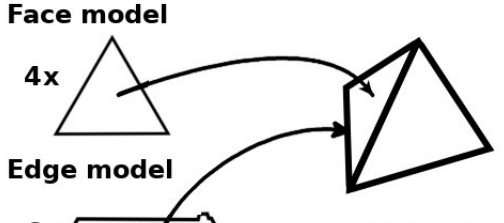
Octahedron
8 Faces
6 Vertices
12 Edges



Edge length approx 58mm

{4, 3} Three square faces
or three 90° edges
at each vertex

Cube
6 Faces
8 Vertices
12 Edges



Edge length approx 82mm

{3, 3} Three triangle faces
or three 60° edges
at each vertex

Tetrahedron
4 Faces
4 Vertices
6 Edges