Archimedean Solids with Polydron

You can make many solids with Polydron or other construction material, but the ones on the next pages are special. These beautiful shapes are called the Archimedean Solids, after Archimedes.

The rules for making these solids are:-

- Each solid is made from more than one sort of regular polygon.
- Every vertex (corner) of a solid has the same arrangement of polygons around it.
- We do not include prisms in the list.

On the right is a complete set of Archimedean Solids. On the following pages you will find each of the 10 solids which can be made from Polydron, with a list of the pieces needed. The pages are in rough order of complexity.

There are several ways to make use of these pages. You can provide two solids per page, fold each page to make it A5 with a front and a back, or cut each page to A5 size.

None of the names of these solids are part of the National Curriculum. However, many children love to know the complex names, and so they are given.

Some Tips

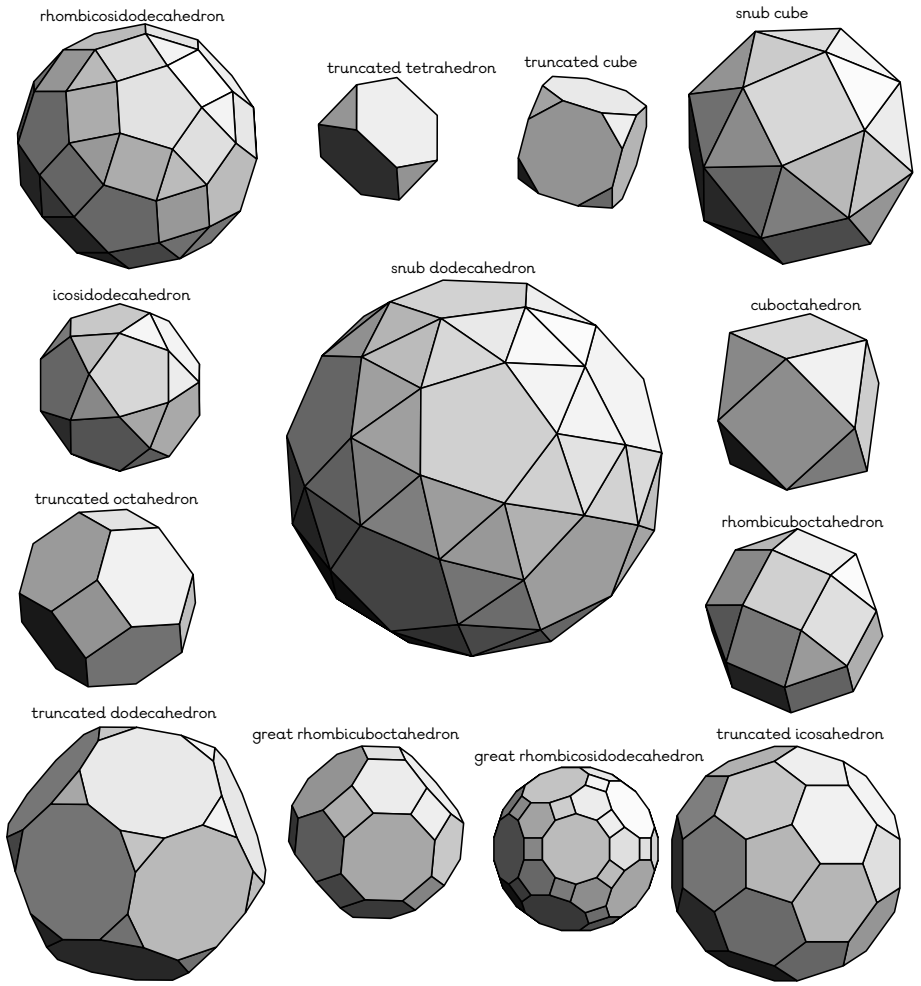
When making a solid focus on the corners. Remember that each corner must be the same.

When a solid is nearly completed, it is easier if the final few shapes have holes in them.

Children are attracted to the larger shapes at the end. However, these can be quite demanding to make, and many children will need some support.

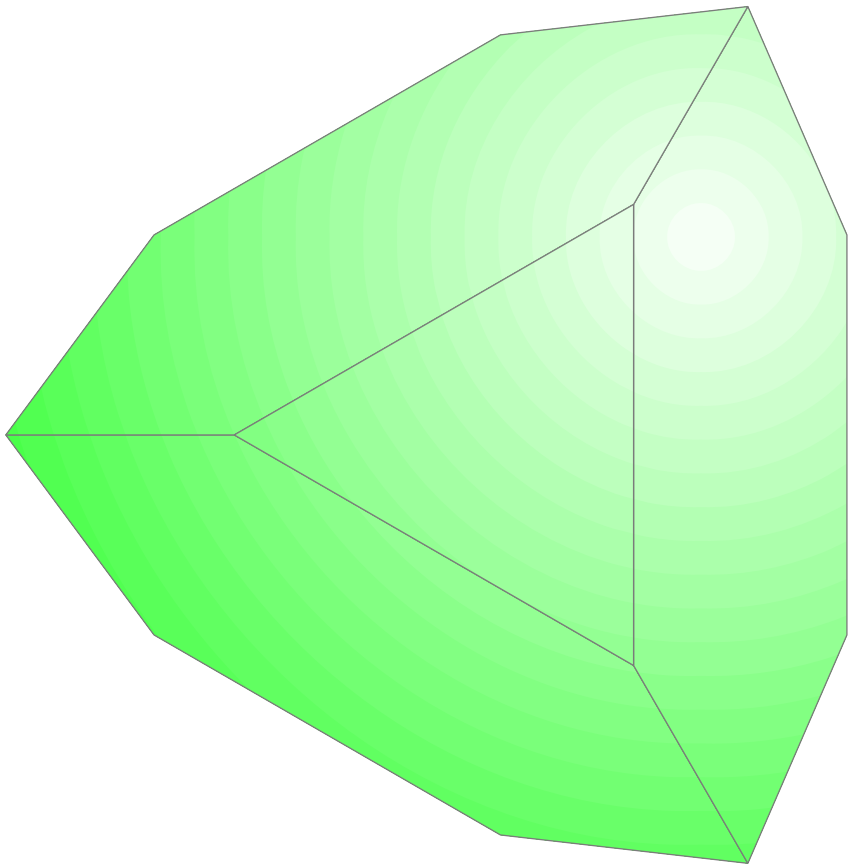
© Bob Ansell

All 13 Archimedean Solids



Truncated Tetrahedron

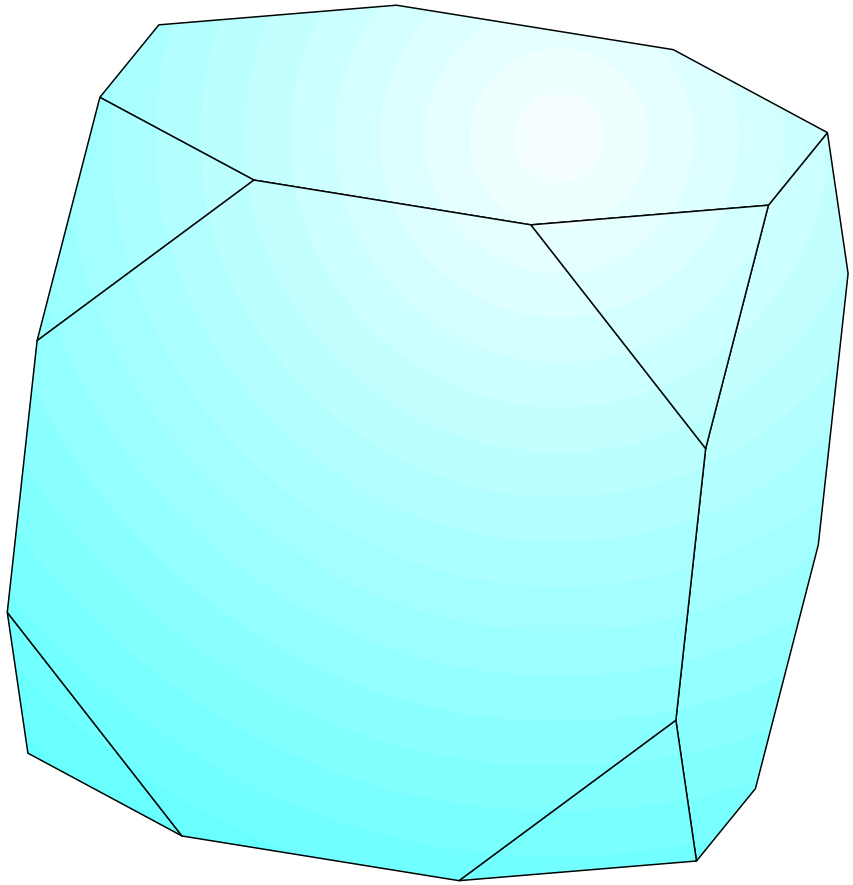
4 Hexagons
4 Equilateral triangles



© Bob Ansell

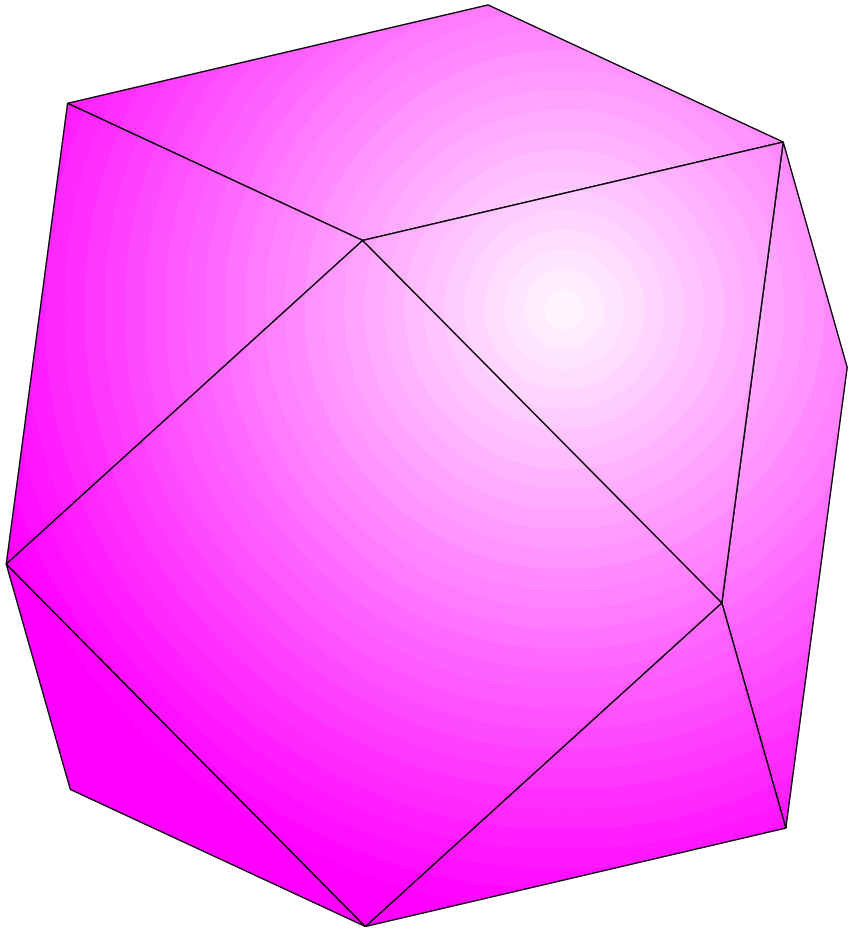
Truncated Cube

6 Octagons
8 Equilateral triangles



Cuboctahedron

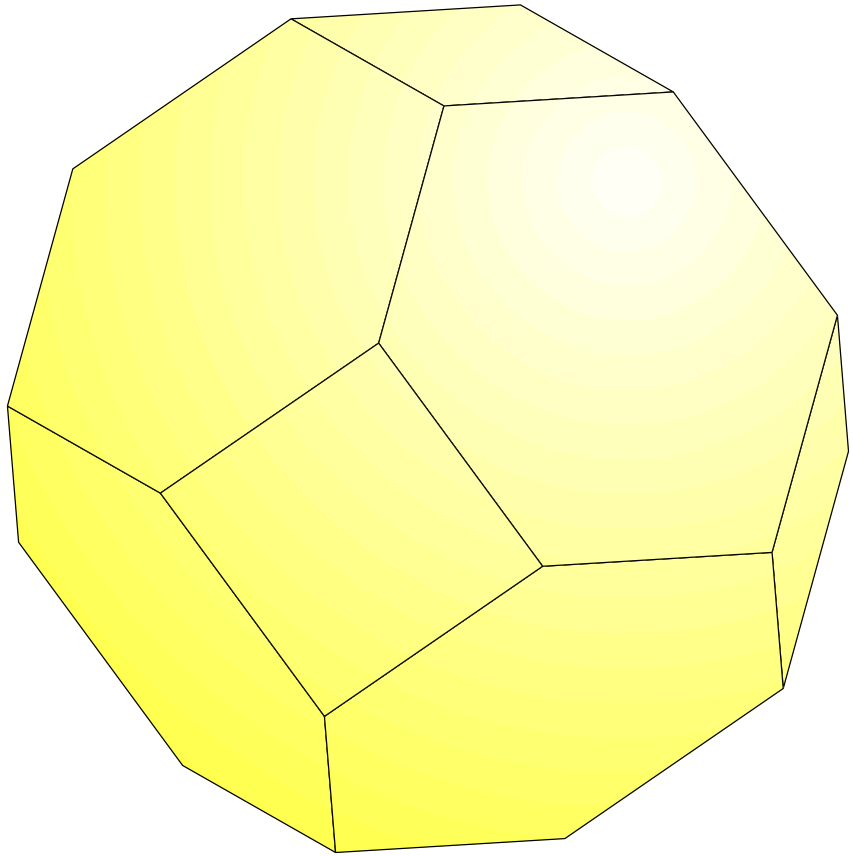
6 Squares
8 Equilateral triangles



© Bob Ansell

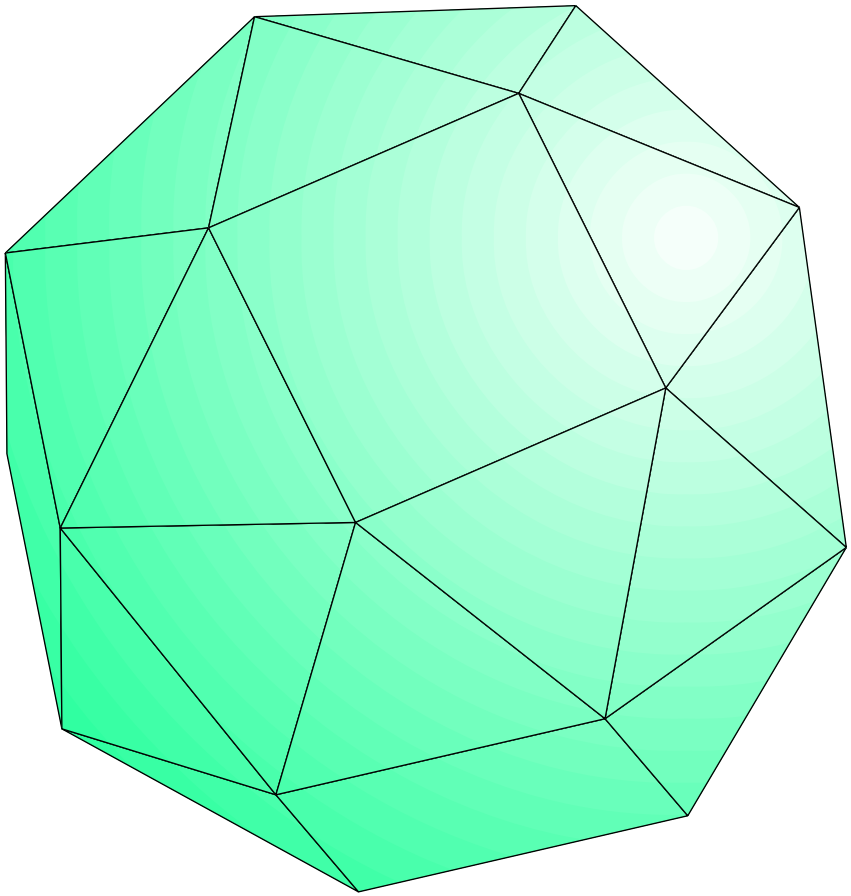
Truncated Octahedron

8 Hexagons
6 Squares



Rhombicuboctahedron

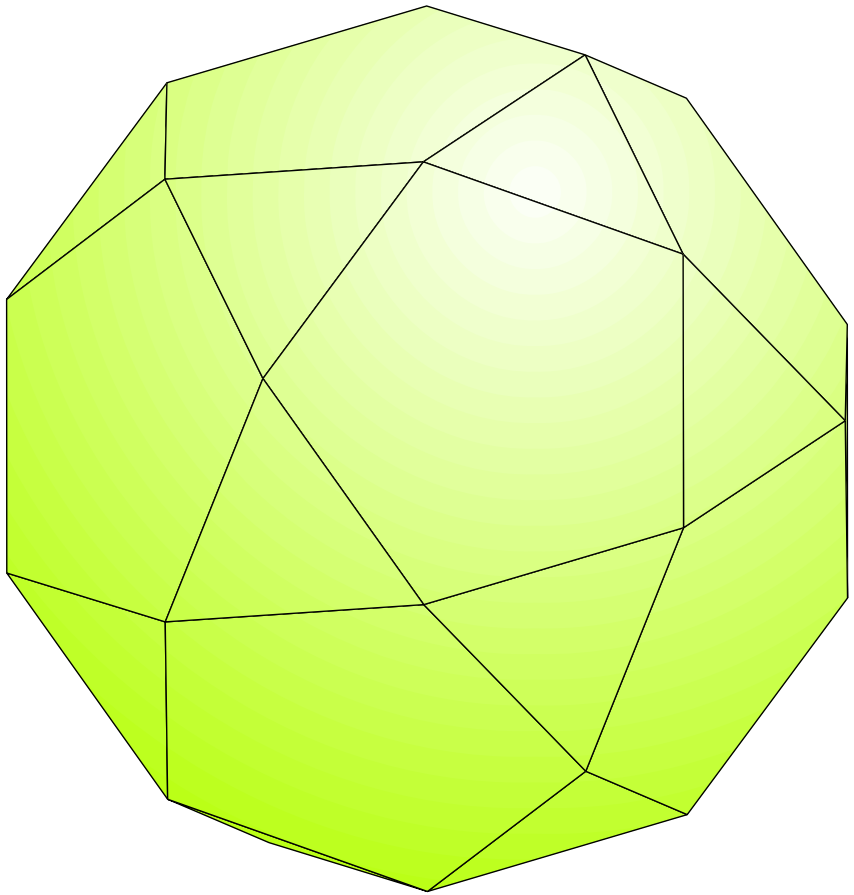
16 Squares
8 Equilateral triangles



© Bob Ansell

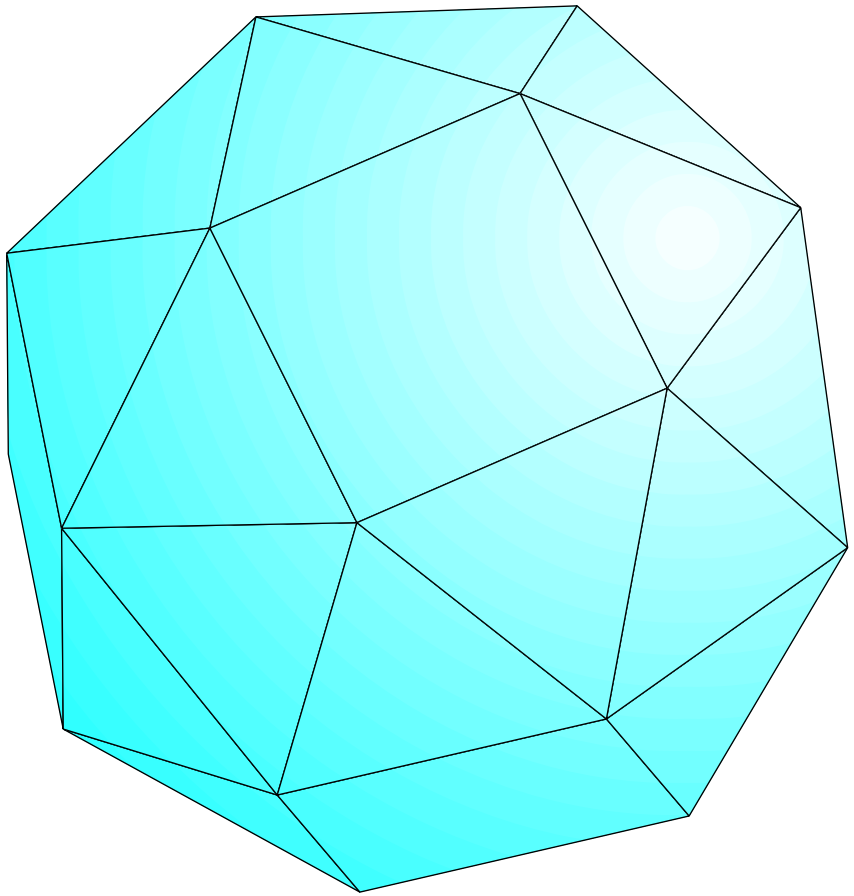
Icosidodecahedron

20 Equilateral triangles
12 Pentagons



Snub Cube

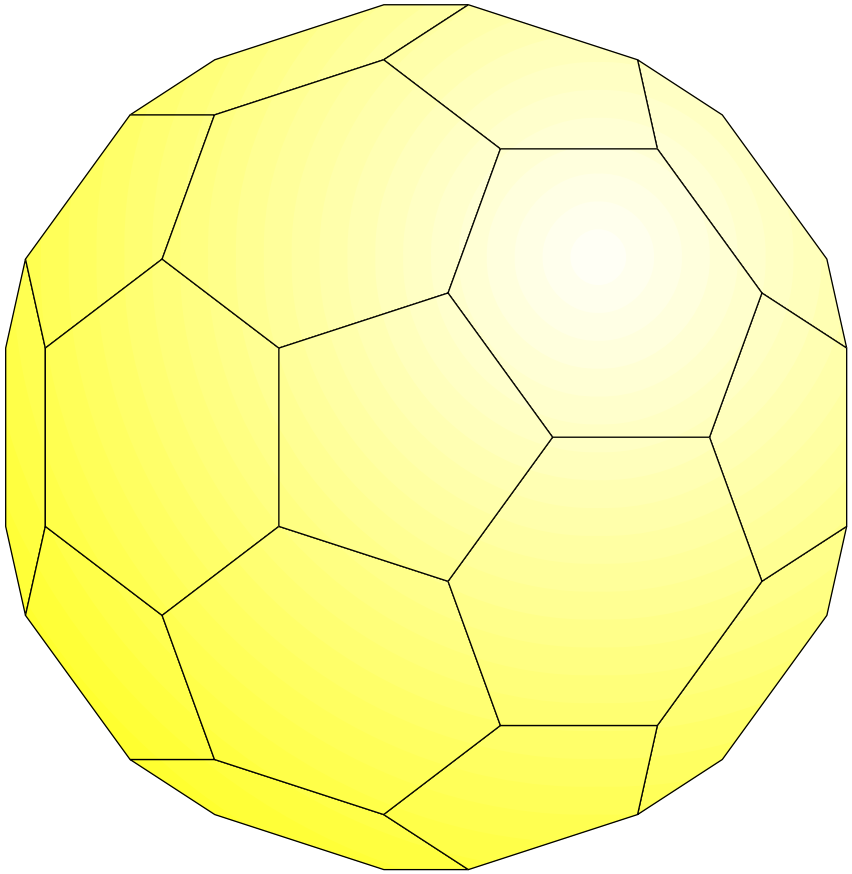
6 Squares
32 Equilateral triangles



© Bob Ansell

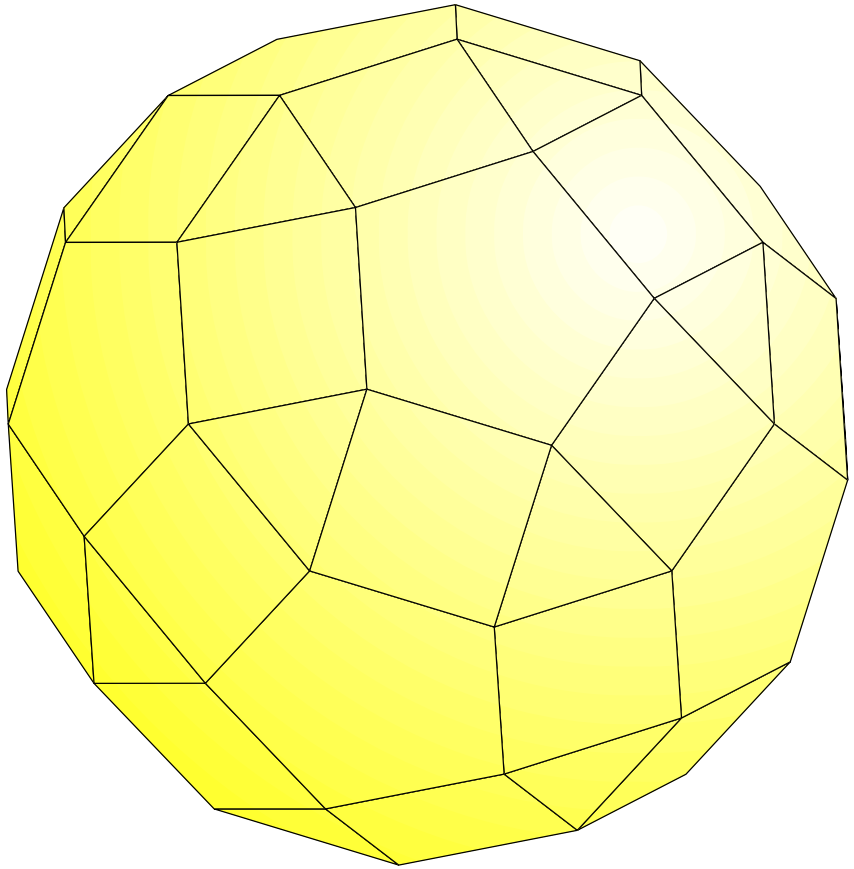
Truncated Icosahedron

20 Pentagons
32 Hexagons



Rhombicosidodecahedron

20 Equilateral triangles
12 Pentagons
30 Squares



© Bob Ansell

Snub Dodecahedron

80 Equilateral triangles
12 Pentagons