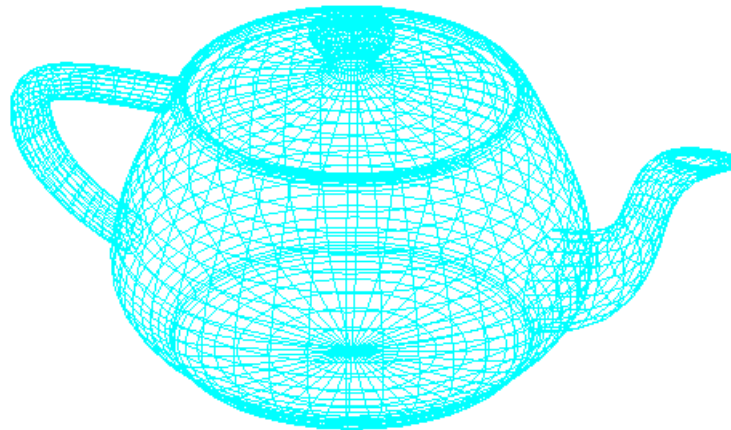


GLUT, GLU Objects



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GLUT Objects

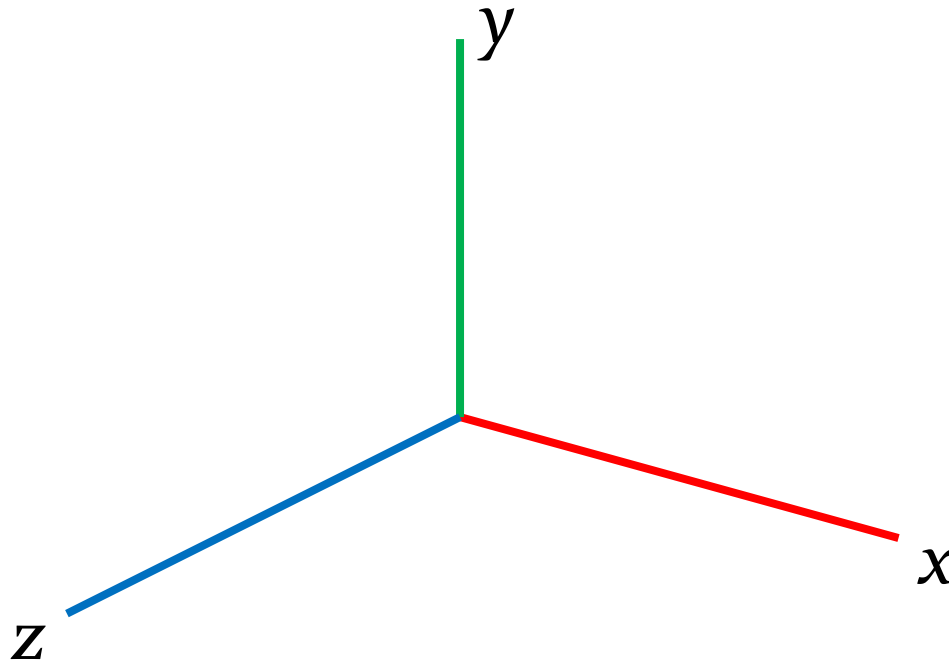
- Sphere
- Torus
- Teapot
- Cone
- Cube
- Tetrahedron
- Octahedron
- Dodecahedron
- Icosahedron

GLU Objects

- Disk
- Cylinder

Axis Notation

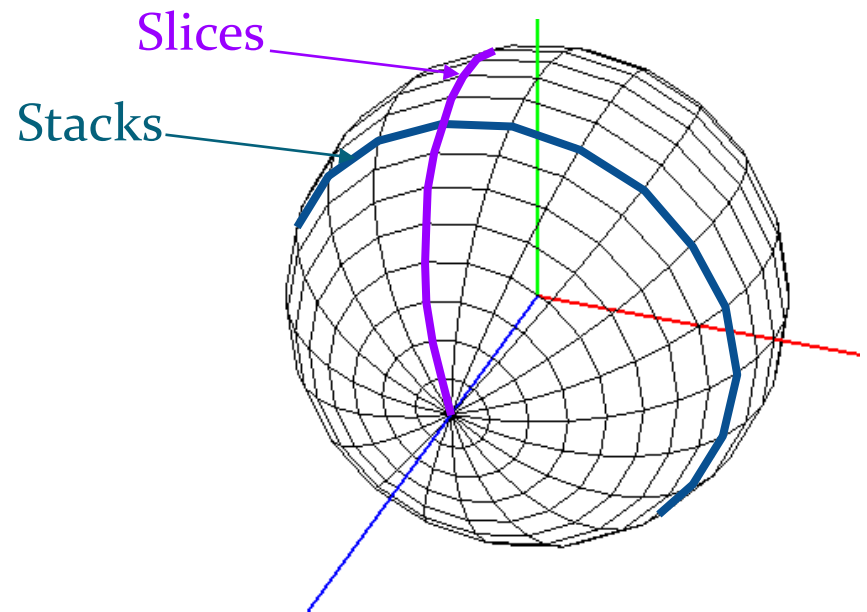
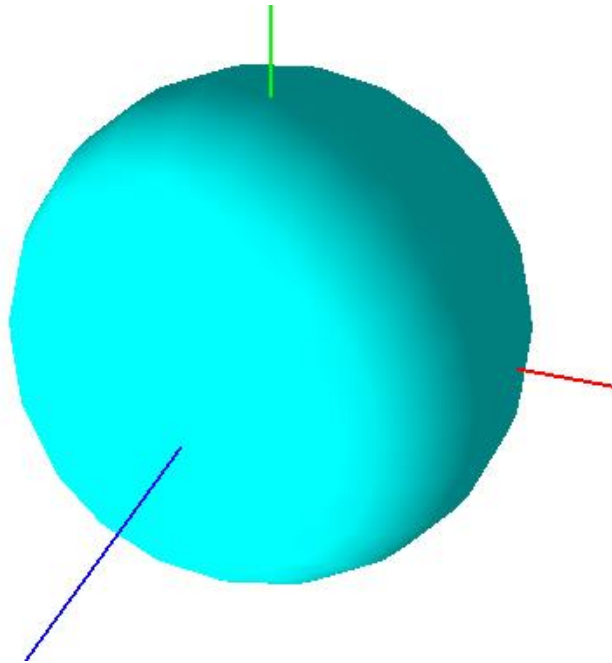
In the following figures, the x -axis is indicated by red colour, the y -axis by green colour and the z -axis by blue.



Sphere

Generates a sphere with the specified radius at the origin.
The polar axis of the sphere is along the z-axis.

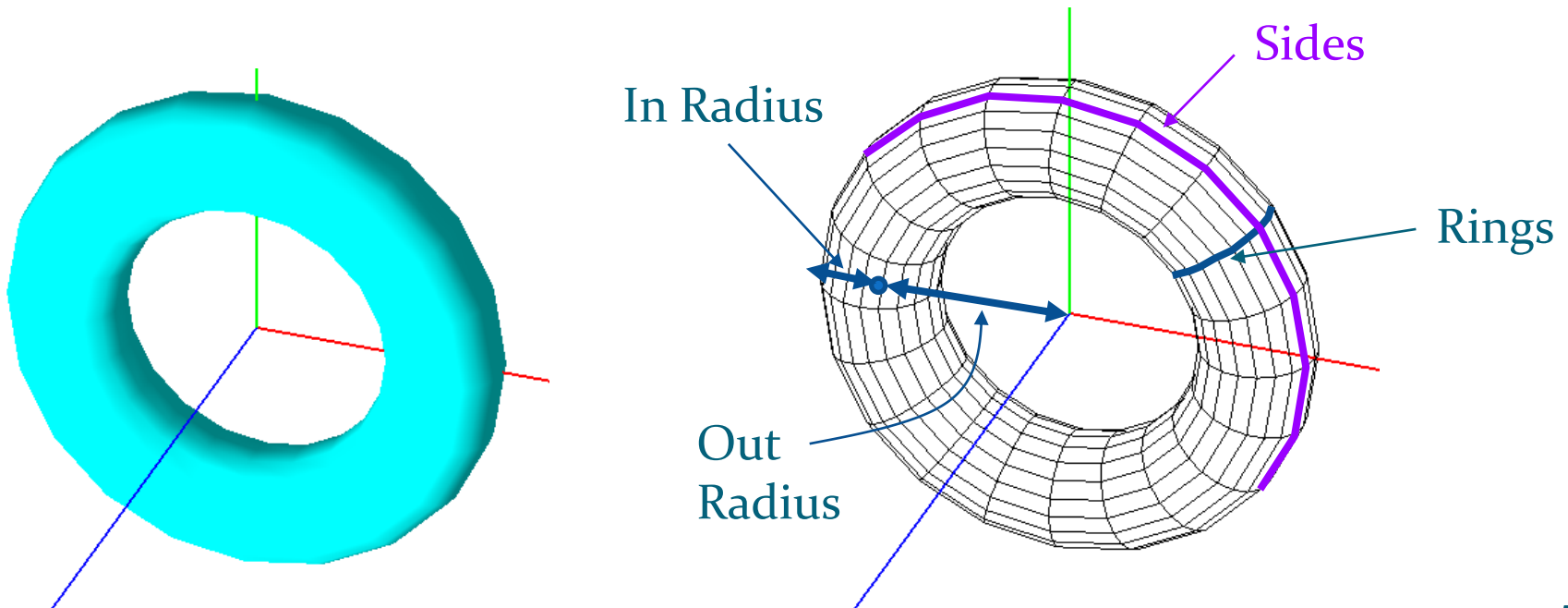
```
glutSolidSphere(radius, slices, stacks);
```



Torus

Generates a torus centered at the origin with axis along the z-axis.

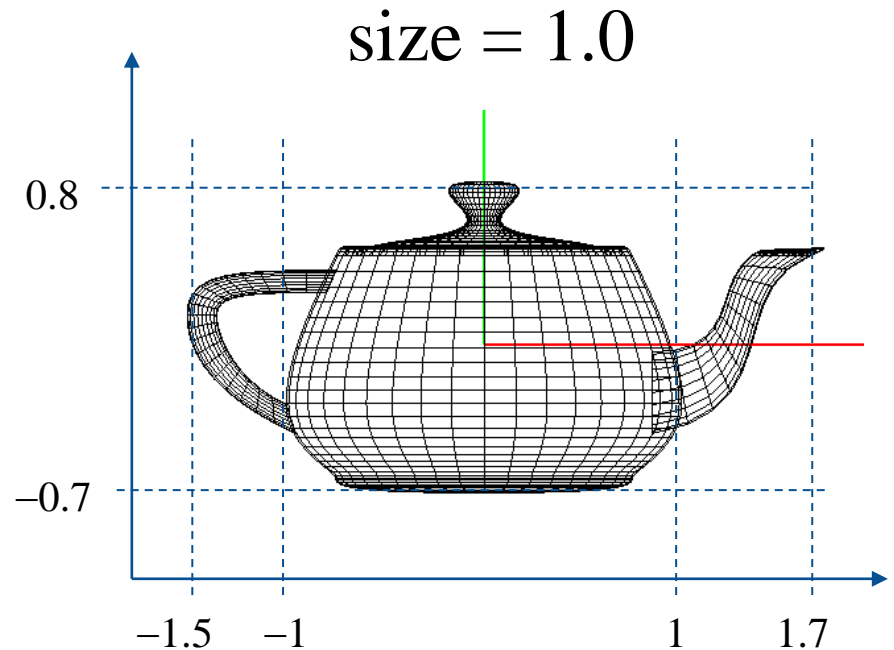
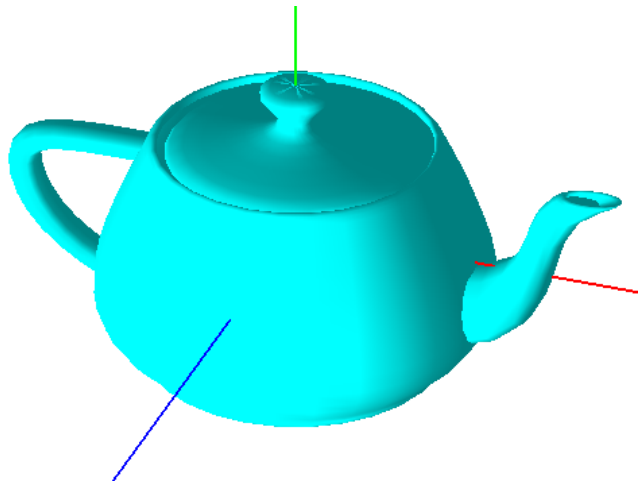
```
glutSolidTorus (inRadius, outRadius,  
               sides, rings);
```



Teapot

Generates a teapot centered at the origin with the spout along the x-axis.

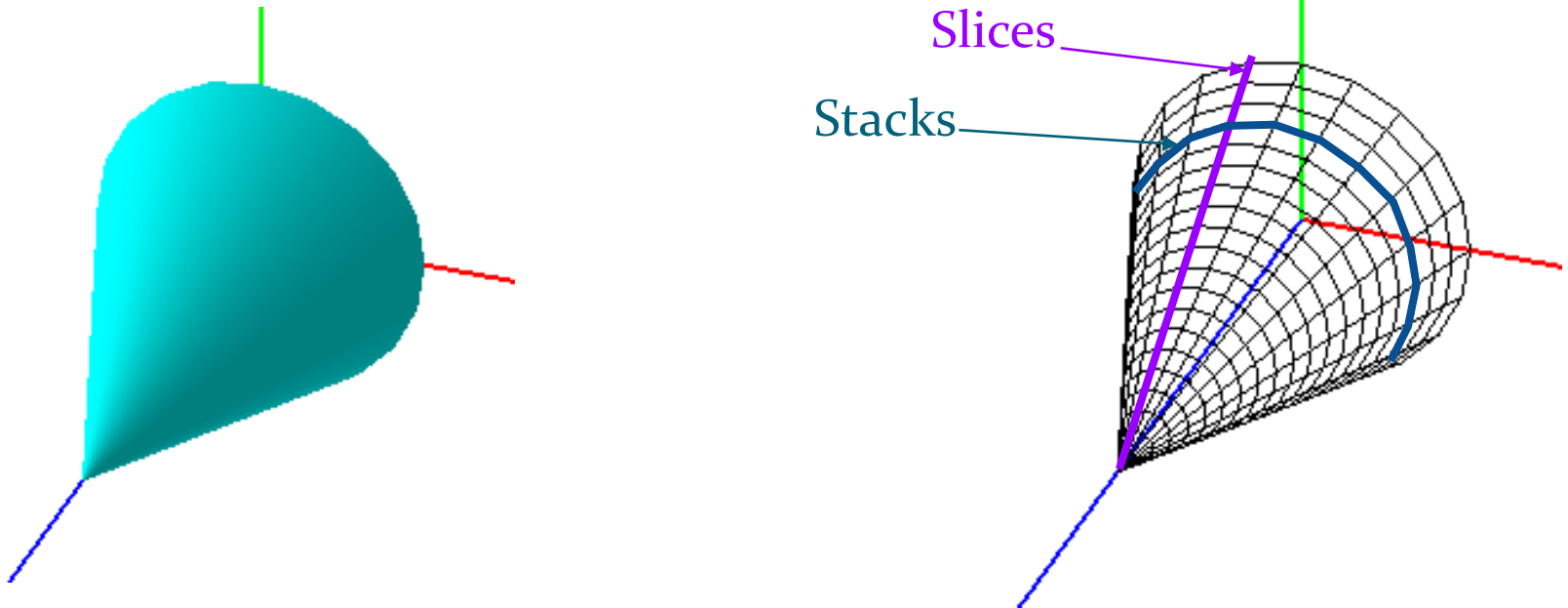
```
glutSolidTeapot (size) ;
```



Cone

Generates a cone with the centre of the base at the origin, base on the xy-plane, and axis along the z-axis. The model does not include the base of the cone.

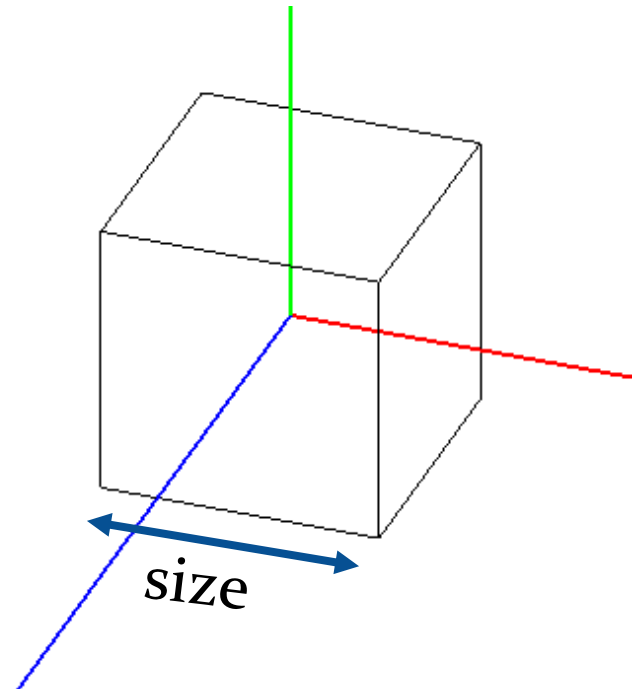
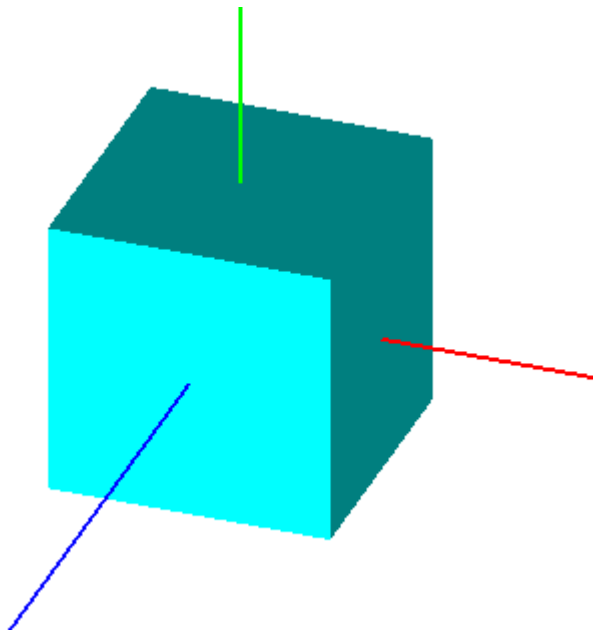
```
glutSolidCone(baseRadius, height, slices,  
              stacks);
```



Cube

Generates an axis aligned cube centred at the origin, with the length of each side being defined by the size parameter.

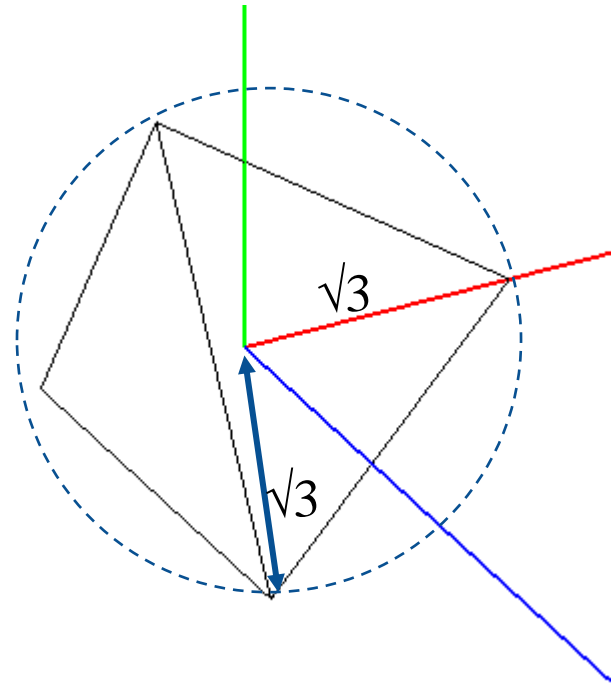
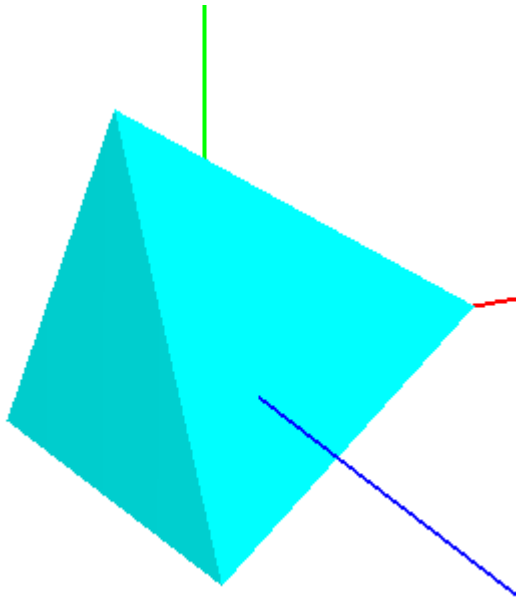
```
glutSolidCube(size);
```



Tetrahedron

Generates a tetrahedron of radius $\sqrt{3}$ units at the origin. A tetrahedron has 4 vertices and 4 faces (equilateral triangles)

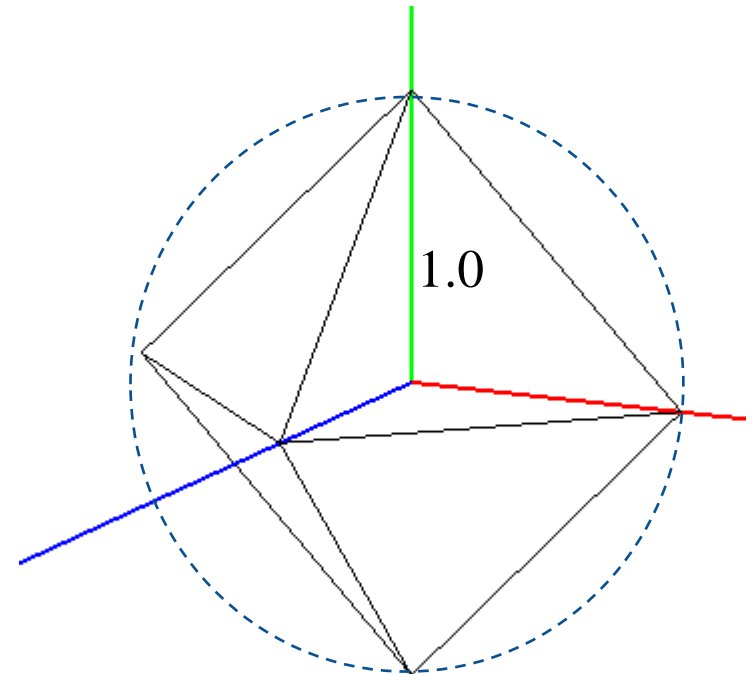
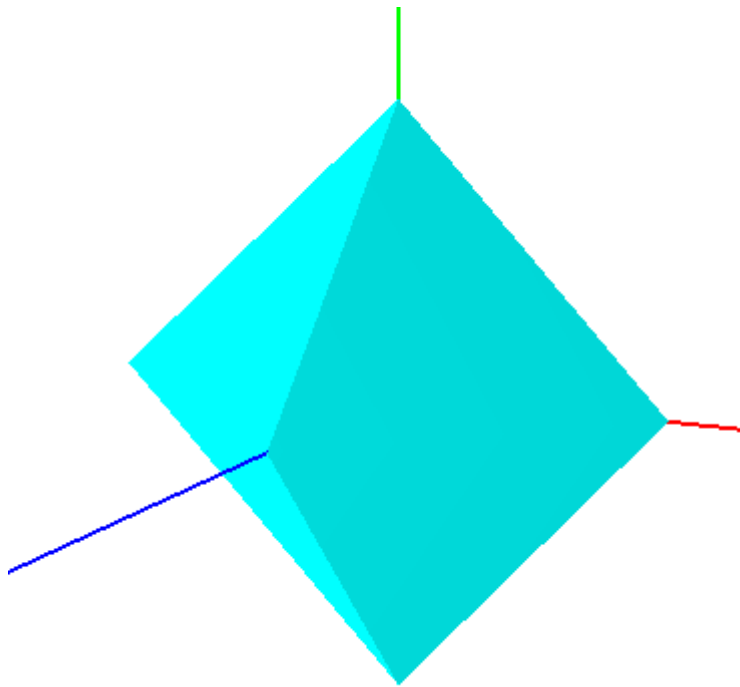
```
glutSolidTetrahedron ( ) ;
```



Octahedron

Generates an octahedron of radius 1 unit at the origin. An octahedron has 6 vertices and 8 faces (equilateral triangles)

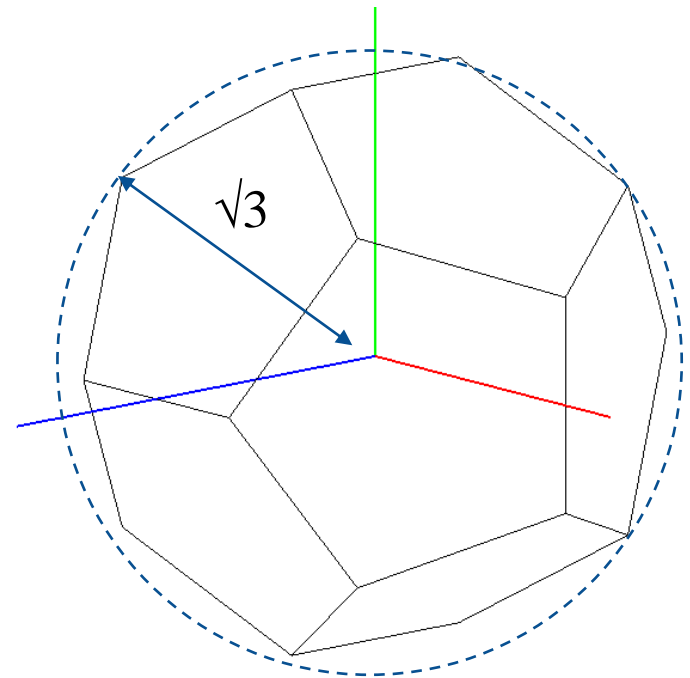
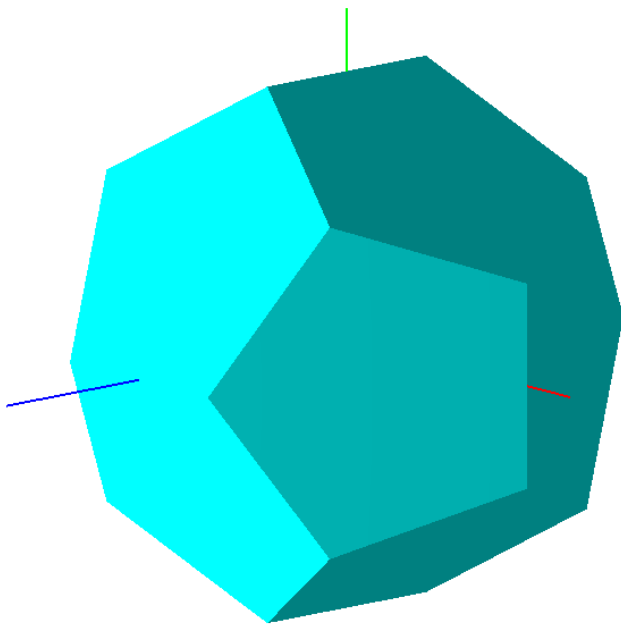
```
glutSolidOctahedron ( ) ;
```



Dodecahedron

Generates a dodecahedron of radius $\sqrt{3}$ units at the origin. A dodecahedron has 20 vertices and 12 faces (equilateral pentagons)

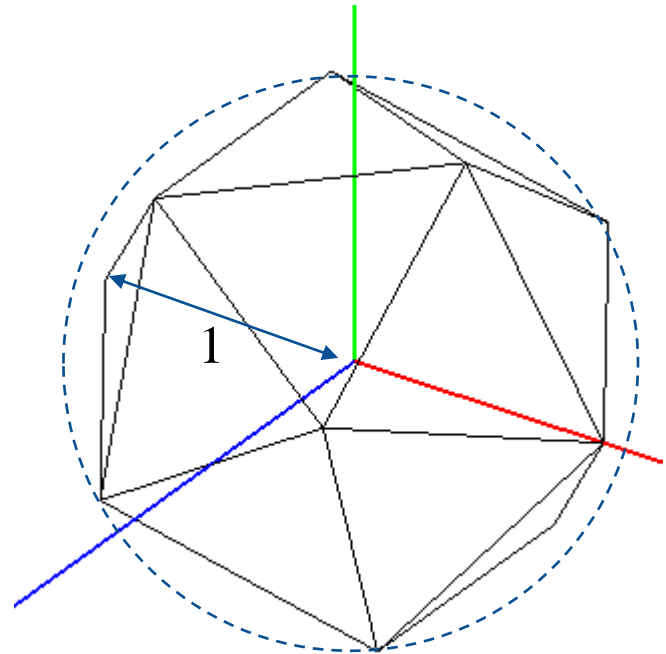
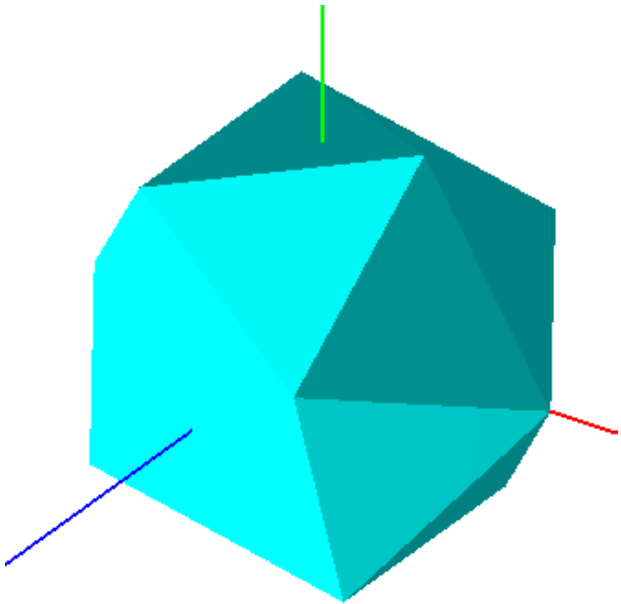
```
glutSolidDodecahedron();
```



Icosahedron

Generates an icosahedron of radius 1 unit at the origin. An icosahedron has 12 vertices and 20 faces (equilateral triangles)

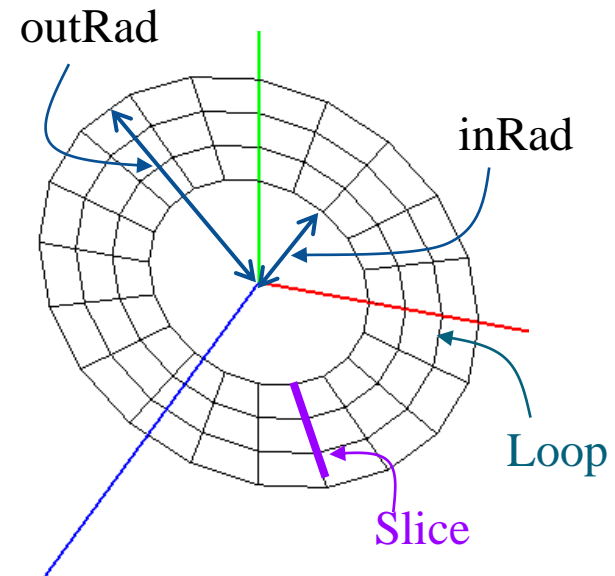
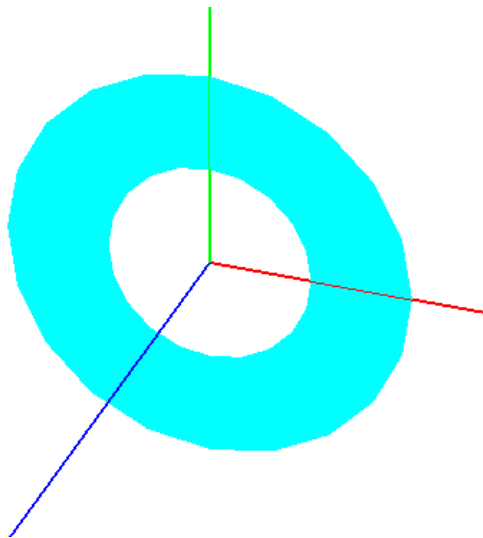
```
glutSolidIcosahedron();
```



Disk (GLU)

Generates a disc on the xy-plane with centre at the origin.

```
GLUquadric *q;  
q = gluNewQuadric();  
gluDisk(q, inRad, outRad, slices, loops);  
gluQuadricDrawStyle(q, GLU_FILL);
```



Cylinder (GLU)

Generates a cylinder at the origin with base on the xy-plane, and axis along the z-axis.

```
GLUquadric *q;  
q = gluNewQuadric();  
gluCylinder(q, baseRadius, topRadius, height, slices,  
            stacks);  
gluQuadricDrawStyle(q, GLU_FILL);
```

