

Chapter 3- Creating and Editing Objects

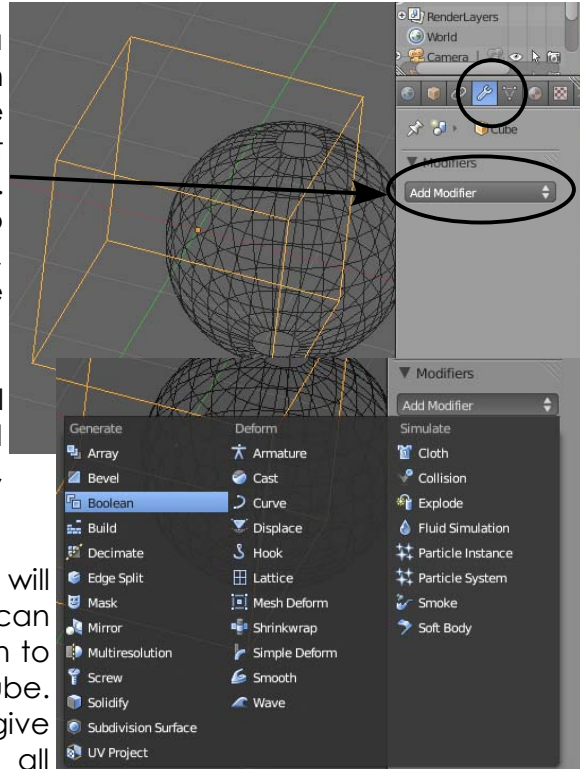
Boolean Operations:



Boolean operations allow you to cut or join meshes by using other meshes. In other words, A mesh can be made combining 2 meshes different from the Join command. When using Join, the 2 shapes still retain all vertices. When using Boolean, a new shape is calculated (union) and removes interior geometry. A mesh can also be used to cut a hole in another mesh (difference) and a shape can also be made from where the 2 shape intersect with one another (intersect).

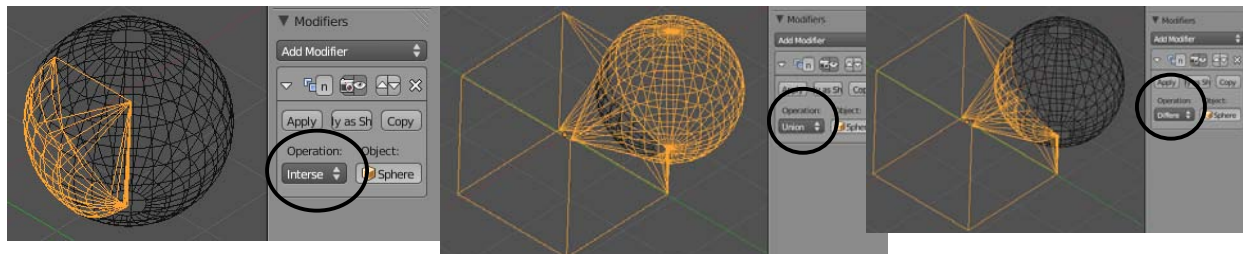
In the sample shown below, a cube and a sphere have been placed overlapping each other. With the cube selected, we will be applying a Boolean Modifier. This is the first time we have accessed the Modifier buttons. If the resolution of your computer is not set so that you are able to see the Modifiers button, hold down your mouse wheel to scroll over the buttons to gain access to it.

Click on the “**Add Modifier**” button. You will see a variety of modifiers that can be added and many will be discussed later. For now, select the **Boolean** modifier.



In the Boolean panel, you will see a block where you can select the object you wish to use to modify the cube. Clicking in the box will give you a drop down of all objects in the scene.

Selecting the sphere will display the changes to the cube. Below, you can see what each option will display:



Intersection (what is shared)

Union (joins the meshes)

Difference (subtracts the mesh)



By hitting the “**Apply**” button, the new shape becomes set and the sphere can be removed.

