Basic geometry

Points ⇄ Curves ⇄ Surfaces ⇄ Solids (BRep)

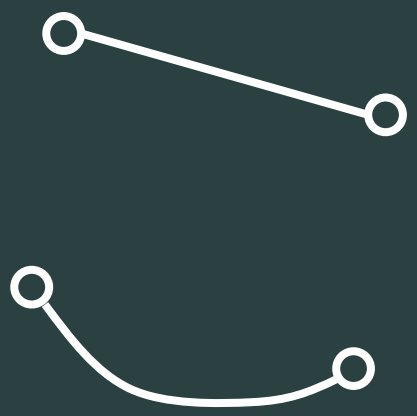
Points

(x, y, z)

A point is described by its coördinates

Points can be used to construct curves and surfaces

Curves



A line is a straight path between two or more points

A curve is path with a curvature

A collection of curves is a polycurve

Curves can be used to construct surfaces and volumes

Surfaces

A surface is like a rectangular stretchy sheet. It can represent simple shapes, like planes and cylinders, as well as free-form, sculptured surfaces.

Surfaces can be used to construct volumes

Solids (Boundary Representation)

A polysurface consists of two or more surfaces joined together.

If a polysurface fully encloses a volume, it is also a solid.

In Grasshopper, a polysurface is called a Boundary Representation (Brep)