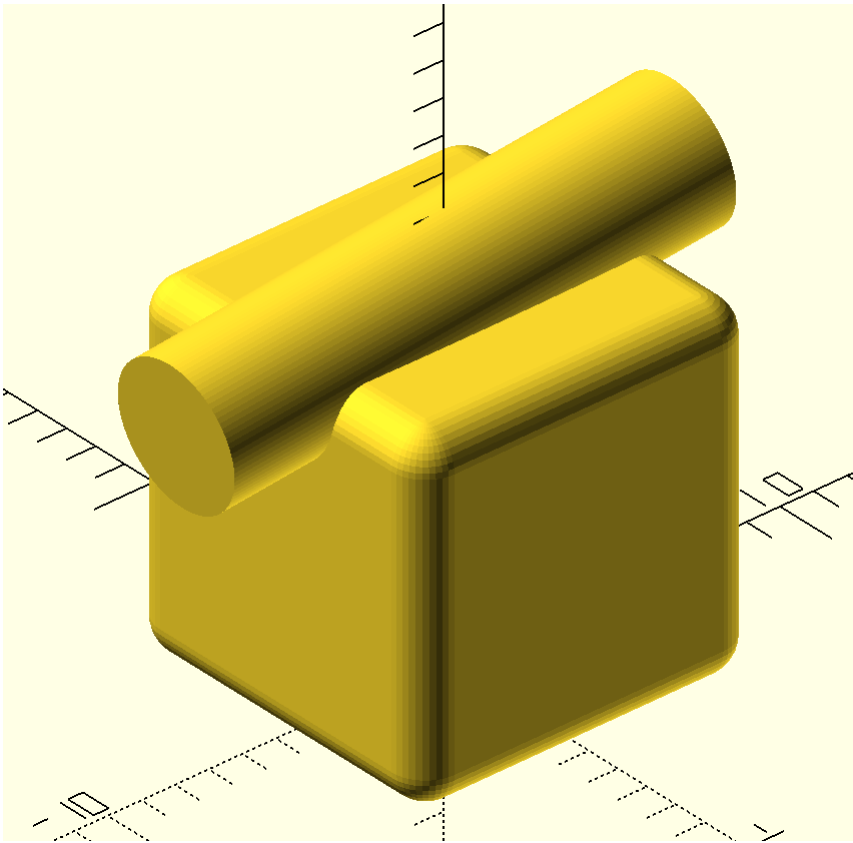
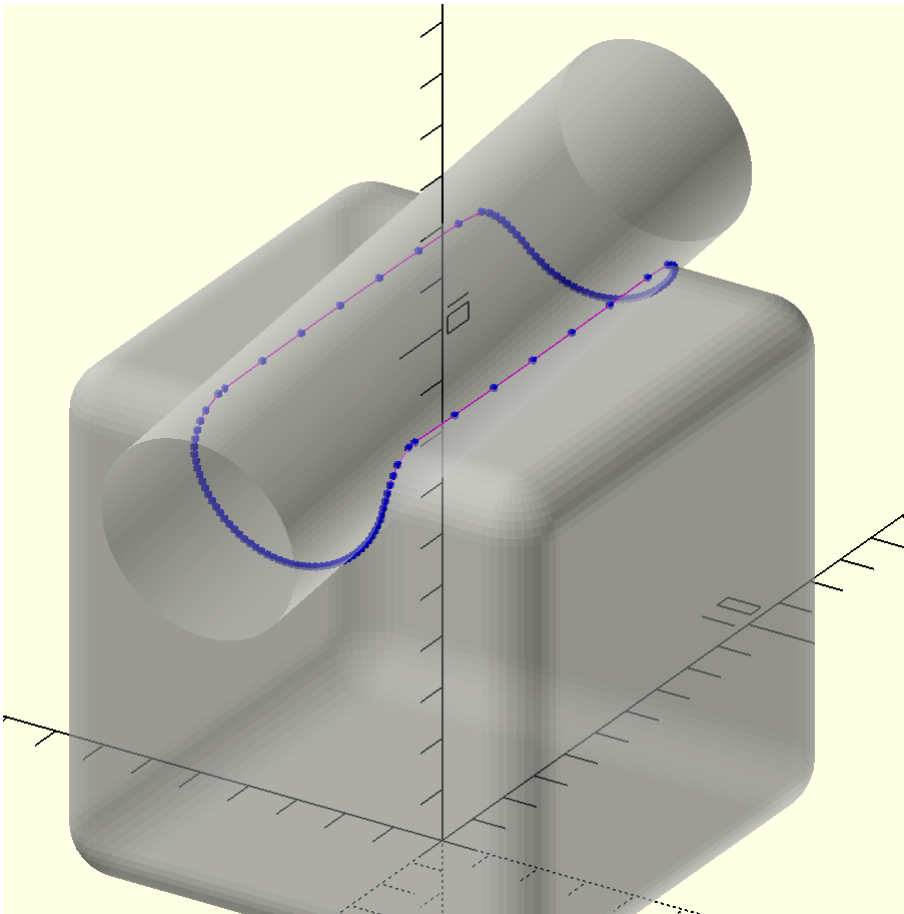


explanation for creating fillets between the intersection of 2 solids

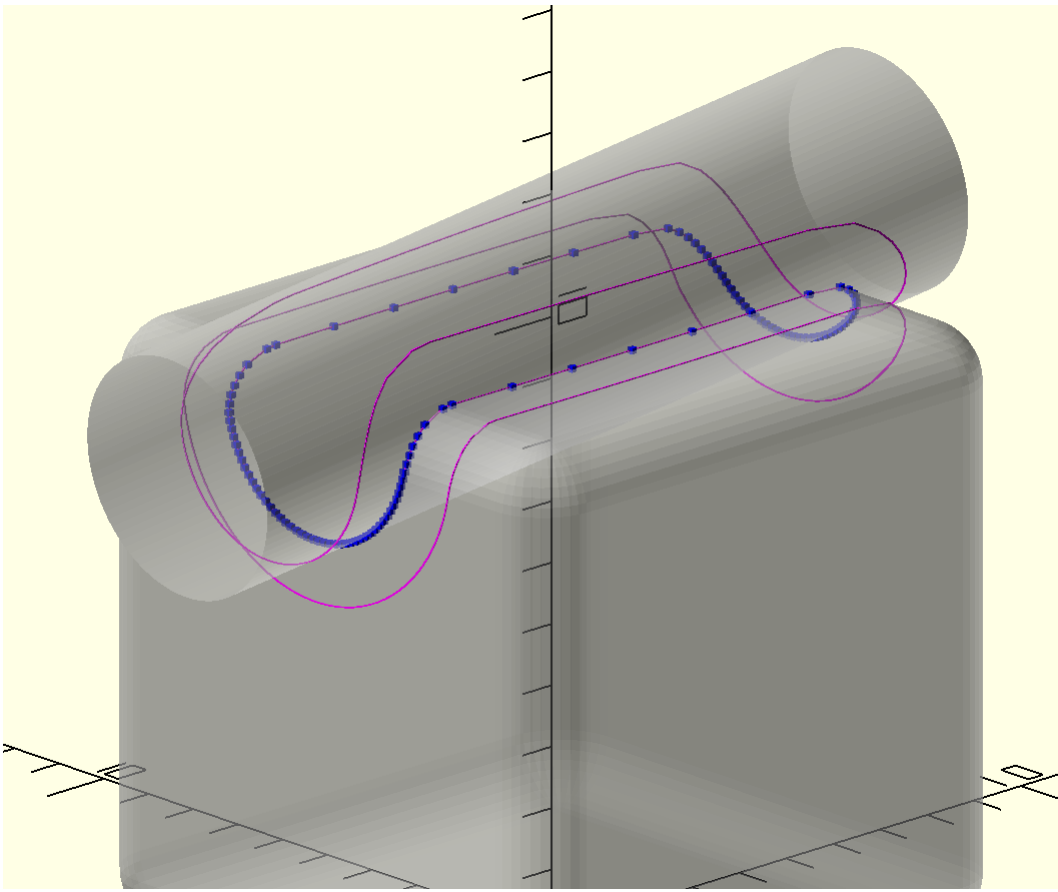
consider an intersection of a cube and a cylinder



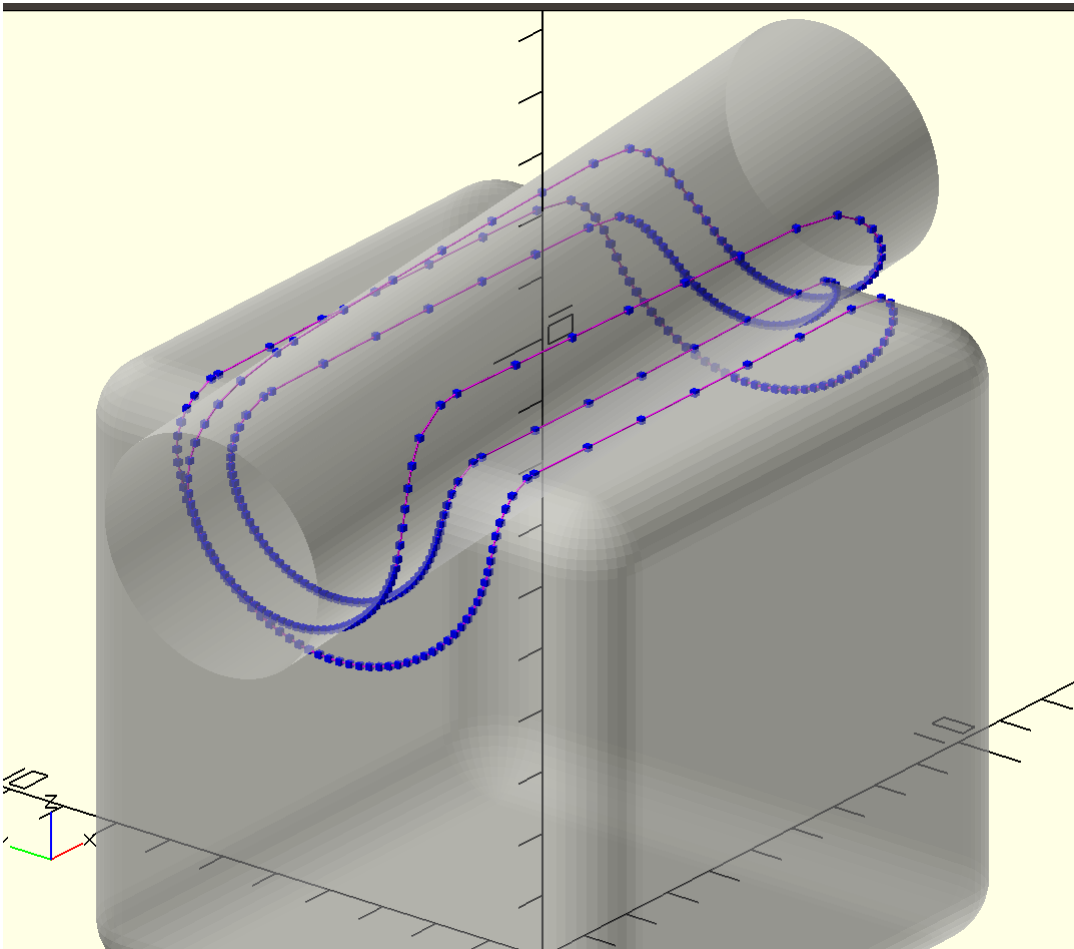
find the intersection points between the two



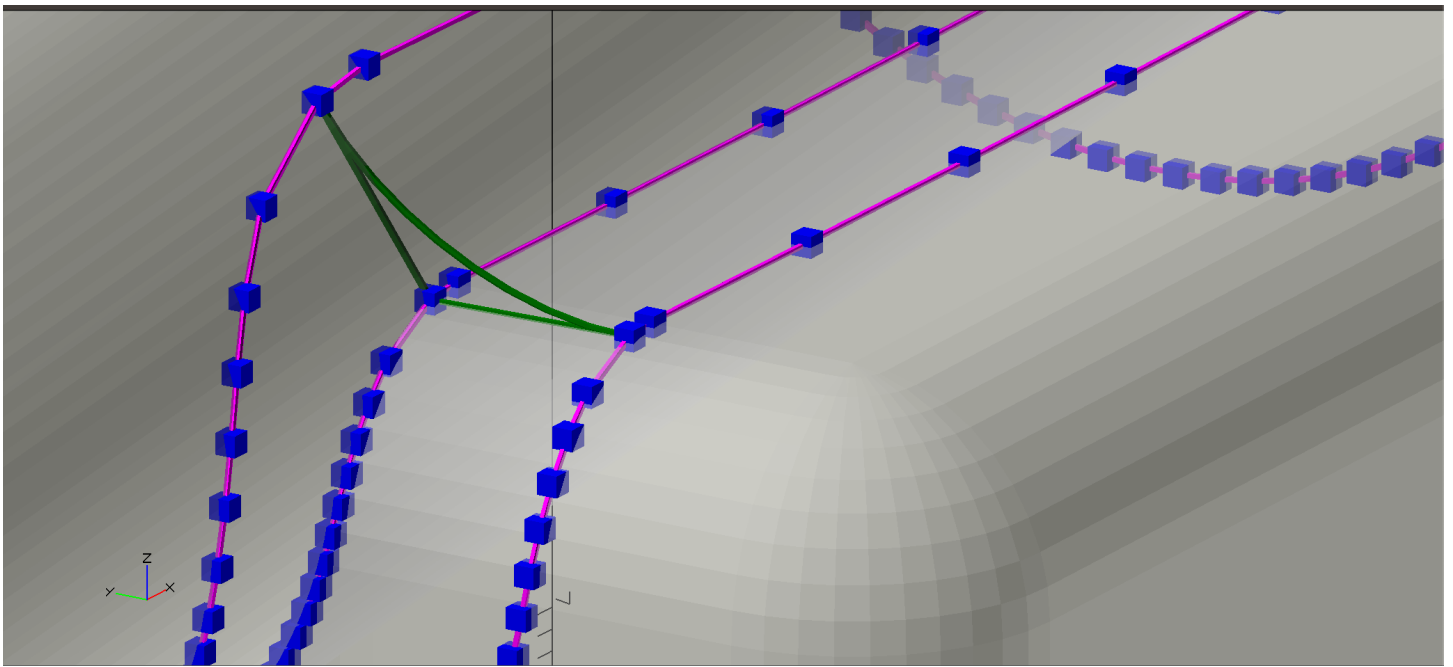
offset the intersection line to cylinder and cube respectively



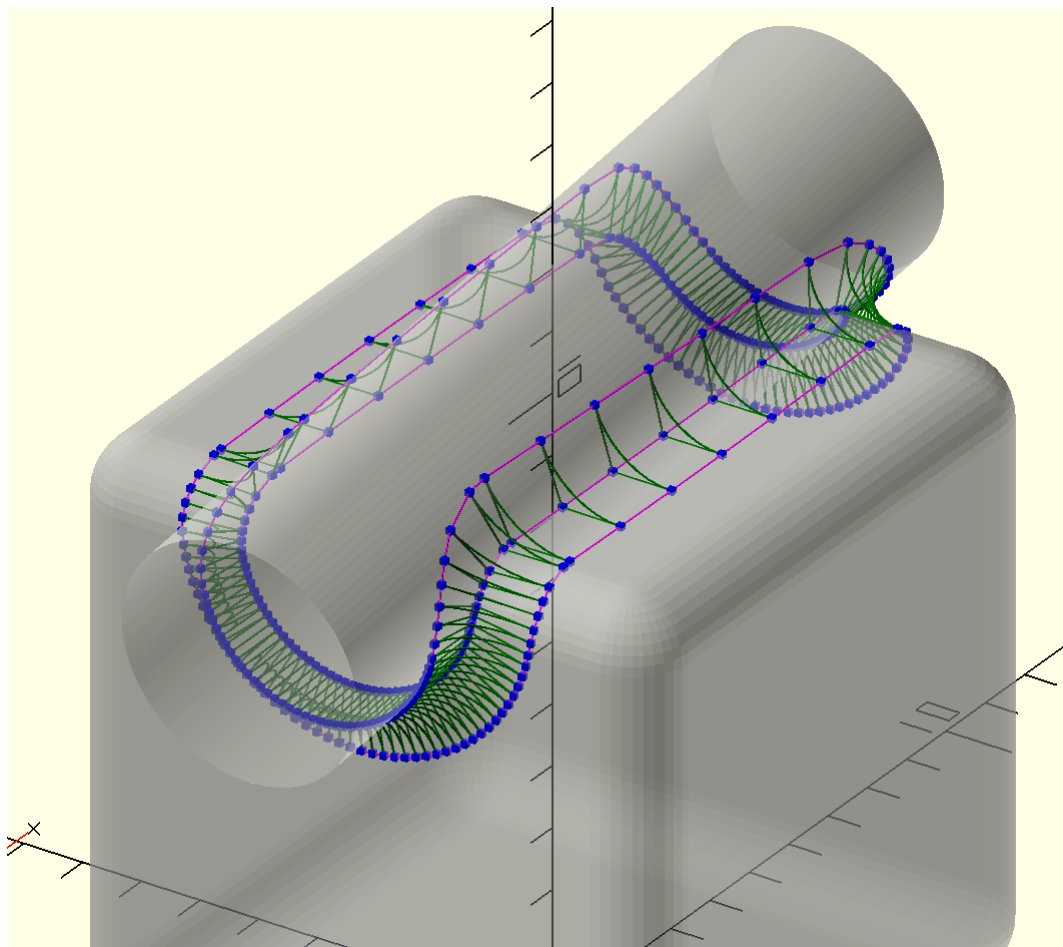
this gives the set of 3 intersection points

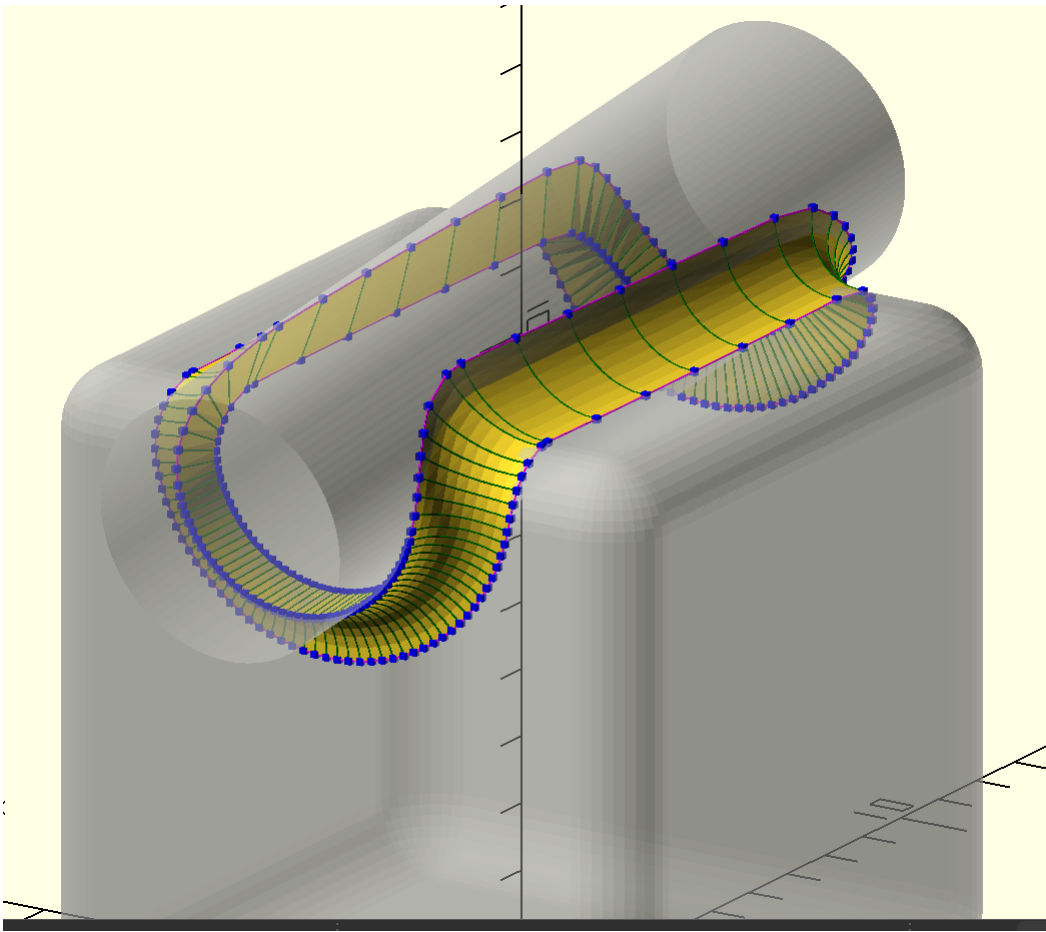


draw a bezier curve between 3 set of points to get a fillet



draw the same curve between all sets of points to complete the fillet

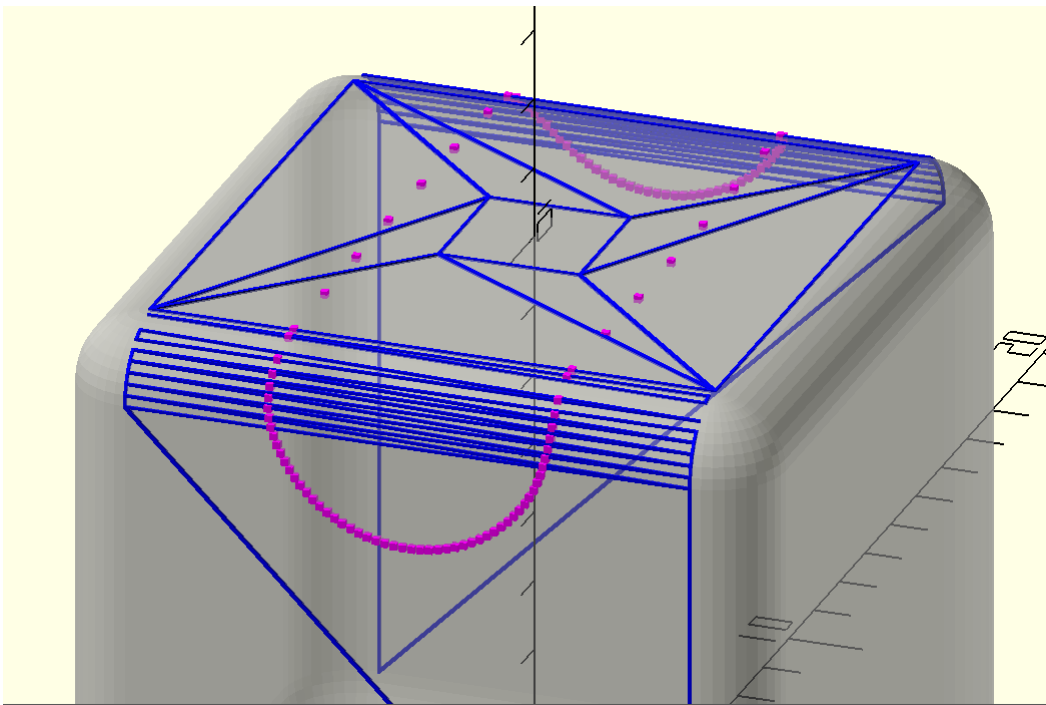




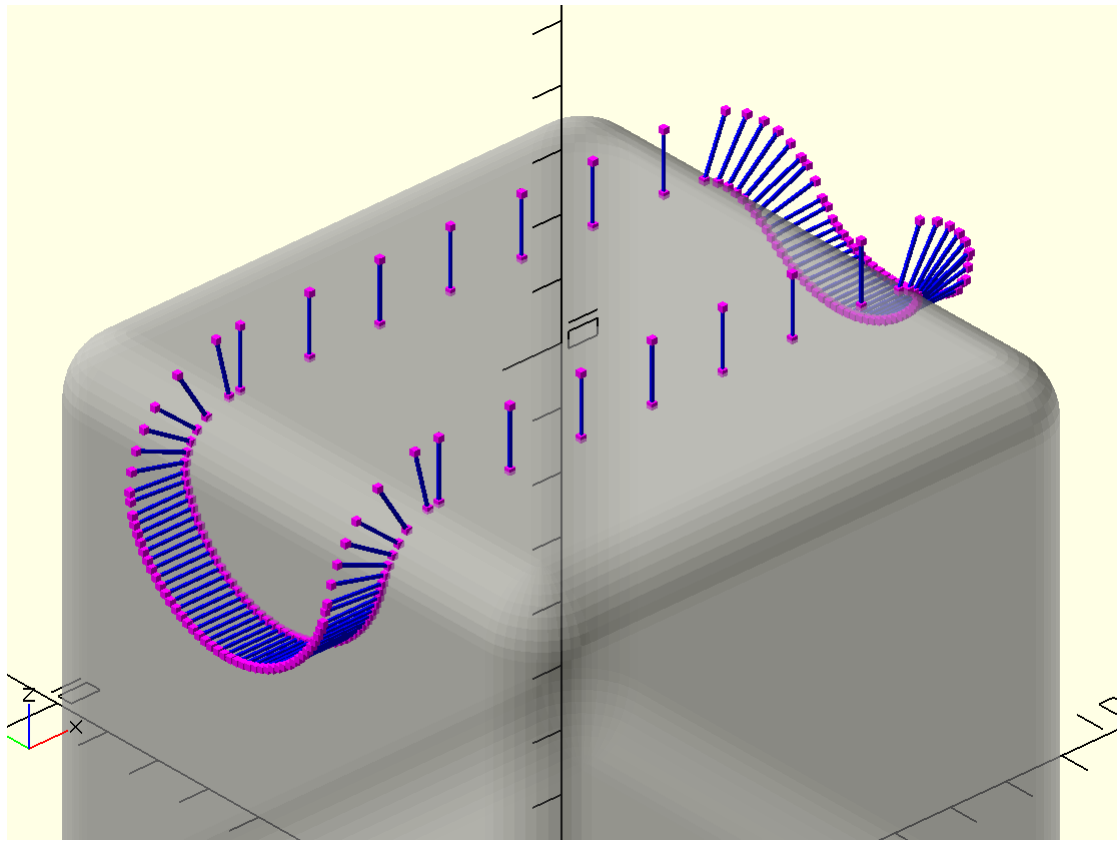
How to offset the intersection lines on the cube or cylinder

shape should be defined in triangles during creating polyhedron as a pre-requisite

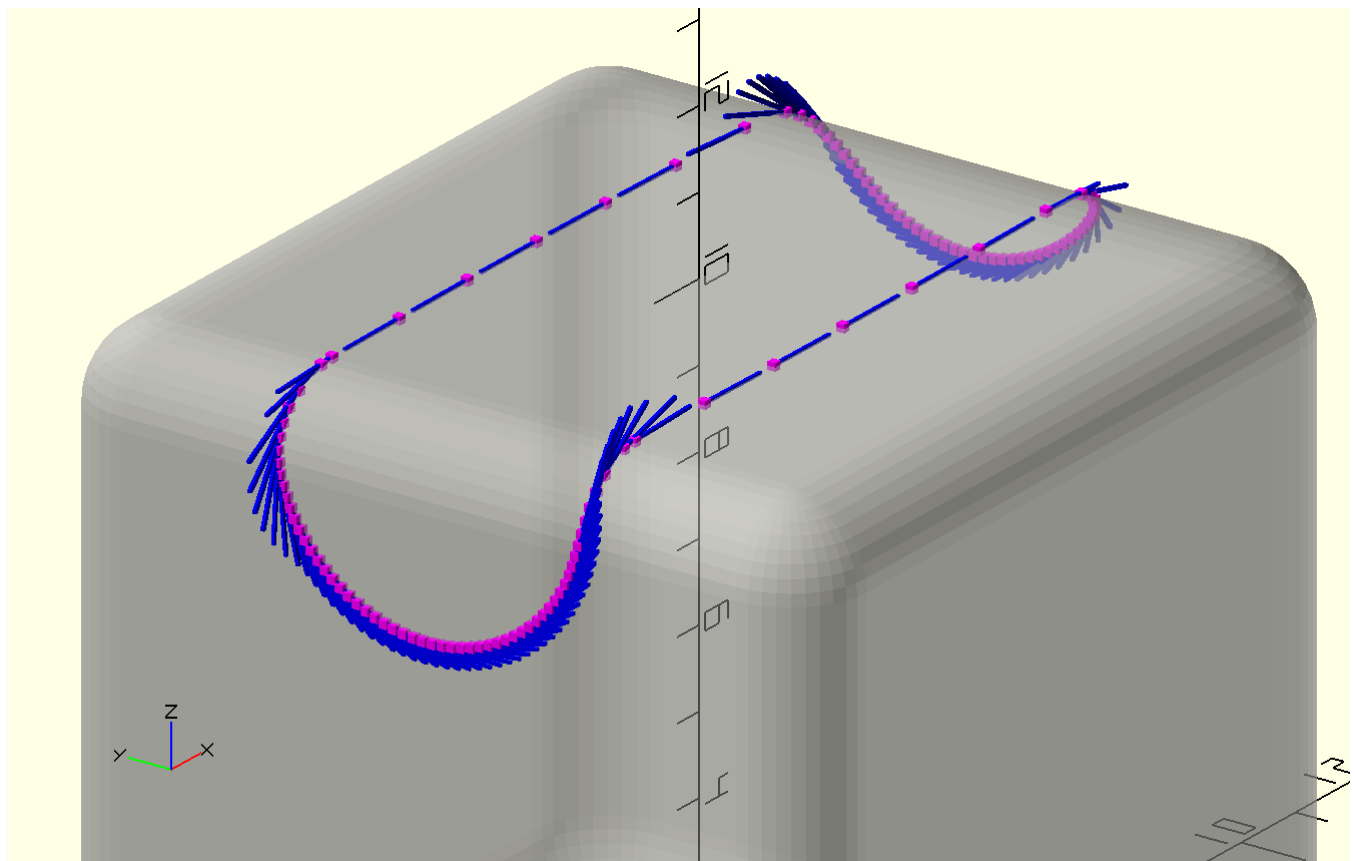
find in which triangle each intersection point lies



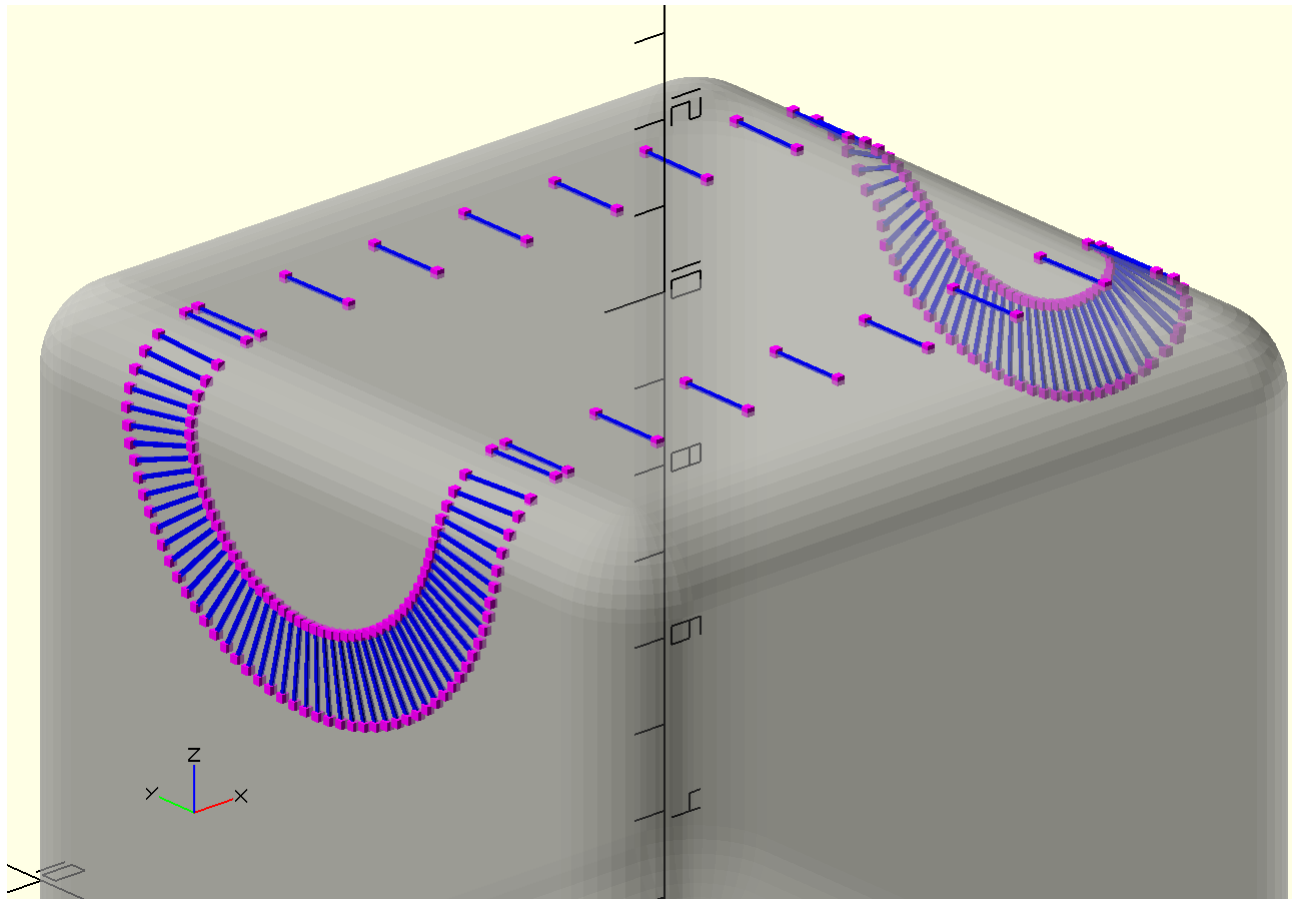
above step will help finding the normals for each point, as the normal to the surface on which a specific point lies is the normal for that point



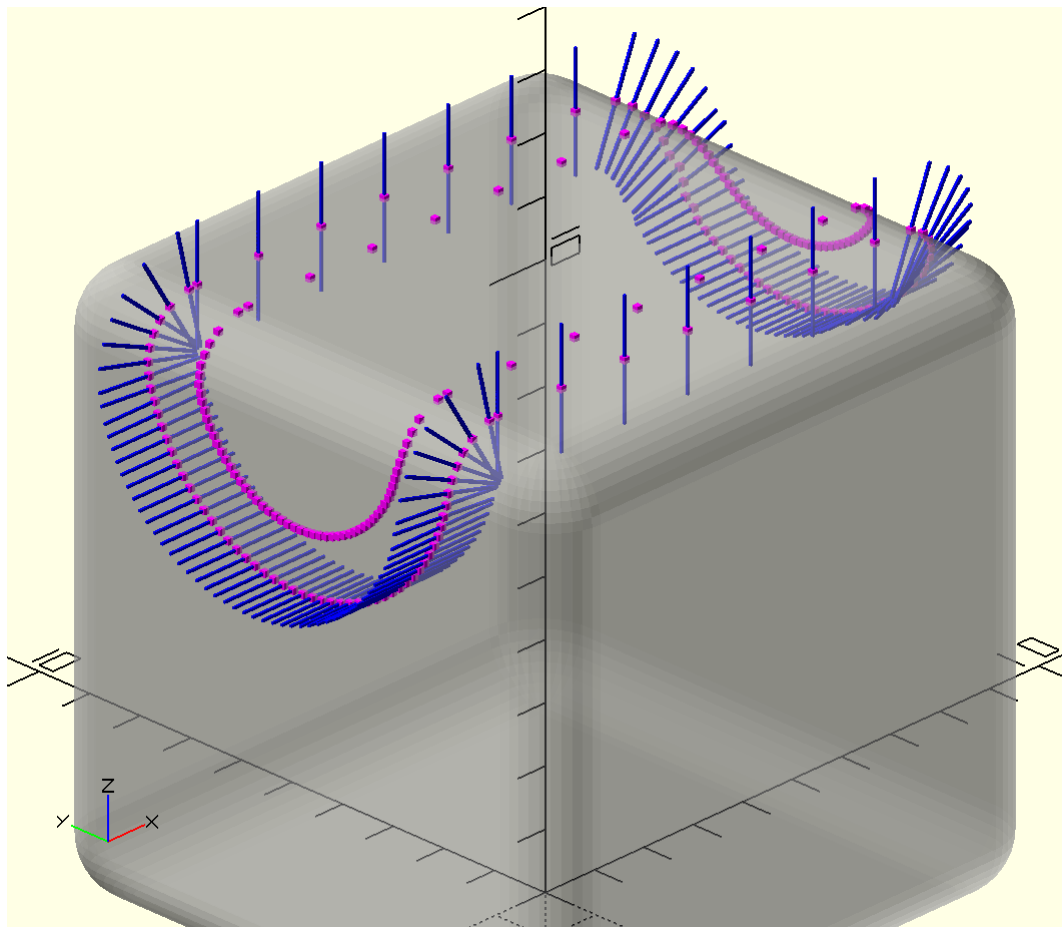
now find the tangents to each point on the intersection points



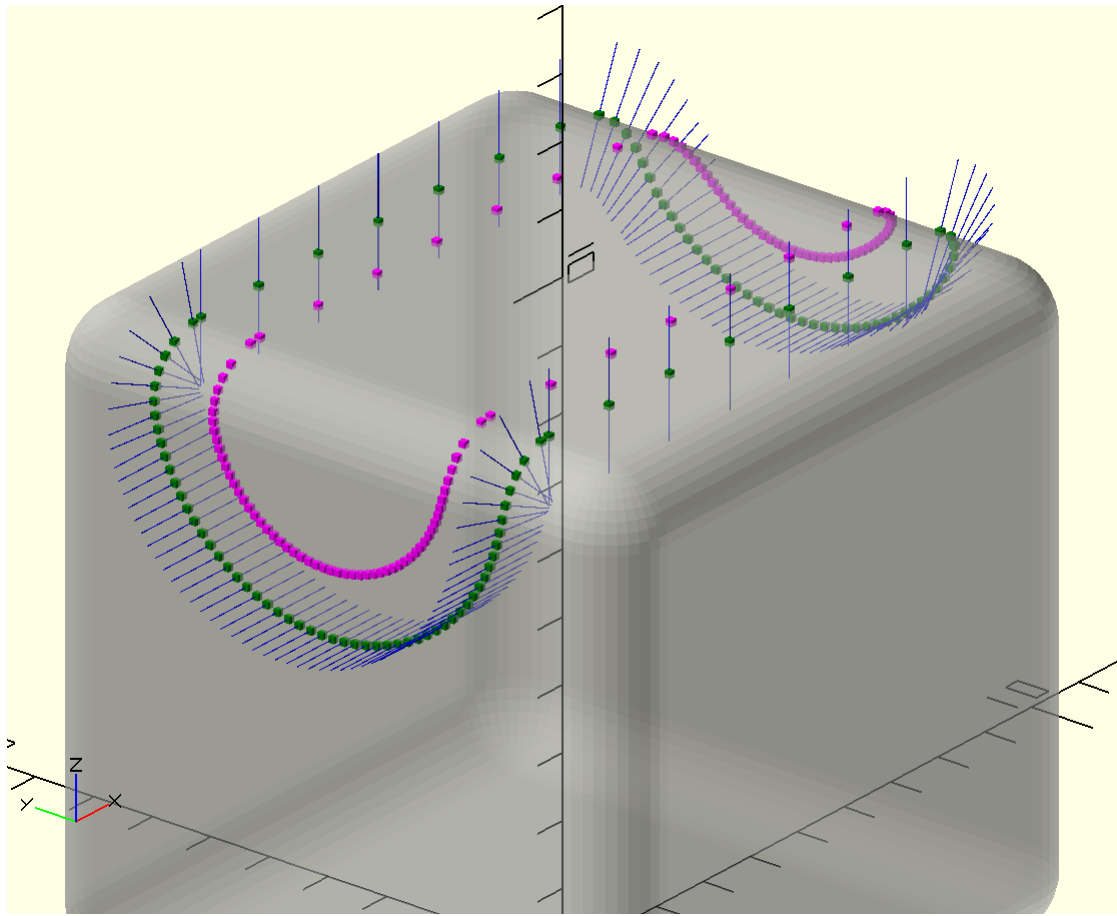
cross product of normals and tangents to the each point will give ortho points



now add the normals of each point to these ortho points to get the cutting lines



intersection points between the cutting lines and the cube are the offset of the intersection line



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