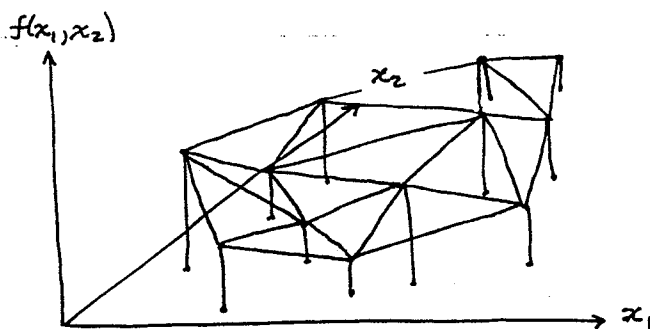
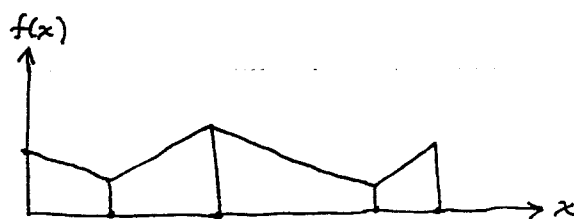


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May 1994

tool: We can represent a surface in N dimensions by triangulating it. The result is an approximation consisting of flat triangular sections joined at the edges. This surface is continuous. In two dimensions the surface resembles a faceted gem:



In one dimension a triangulation is a piecewise-linear approximation:



In three dimensions the triangles become tetrahedrons and cannot draw an illustration of the "surface" which is now a 3-D object in a 4-D space.

comment: Triangulation allows data points to be located anywhere - not just on a grid. This is an advantage.

comment: We can extend triangles at the edge to cover a region larger than the domain in a sensible way. In other words, triangulation should generalize well.

comment: There is more than one way to triangulate a given set of points.