1096-51-703 **Derege H Mussa***, Department of mathematics, Texas A&M University -Commerce, 75429-3011, Commerce, TX 75429. *Tetrahedron and Nets.* Preliminary report.

Given six stick lengths, even if any triple of these lengths satisfy the (strict) triangle inequality (the sum of the lengths of any two sticks is greater than the third), there may be no tetrahedron with edges having these six length . A tetrahedron is a three dimensional solid having four vertices , four triangular faces and six edges which don't lie in a single plane.a six tuple =(a, b, c, d ,e, f) exists if its facial and the McCrean determinant is positive. A net can be described as the polygon obtained when one cuts along a spanning tree of a (convex) polyhedron so that the polyhedron can be opened into a simple plane polygon. When cuts along a spanning tree results in a self-intersecting plane polygon the result will be called an overlapping net. This leads to the following open problem:Does every tetrahedron have a path net with a none overlapping unfolding? It is important to emphasize that for a tetrahedral it is not particularly easy to find edge lengths and a spanning tree for which this phenomenon occurs. there can be a spanning tree for a tetrahedron which when cut will lead to a way to open up the tetrahedron which will overlap.In response to a conjecture (Fukuda) example have been found for the partition. (Received September 09, 2013)