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Twenty-Five partition Types of Tetrahedra. Preliminary report.

Tetrahedron (plural Tetrahedra) is a three dimensional solid having four vertices, four triangular faces and six edges which don't lie in a single plane. We classify the Tetrahedra according as what the partitions of edge lengths are present and without regard to the relative lengths of the edges. The partitions of n are the ways of writing n as the sum of positive integers .Since the tetrahedron has 6 edges then there are 11 such partitions and all exists as 3D type but not as a degenerate 2D type. We can also consider the partition for a particular tetrahedron based on congruence of triangles.This system can be further refined to take into account whether the triangles are equilateral, isosceles or scalene. The refined approach taking some geometric information into account leads to potentially 25 classes (D.Mussa, Doctoral Dissertation, Columbia University, 2013). Theorem(Derege Mussa): There are 25different partition classes of Tetrahedra taking into account graph theoretical aspects of the position of the edges, and all 25types exist. The paper discusses new mathematical questions: 1. How to determine the 25 partition types of Tetrahedra. 2. The 25 partition types of Tetrahedra (Received November 10, 2013)