1116-VN-1647 **Jeremy Newton*** (jnewto02@leeu.edu). *Predicting the Sequence of Non-Truncated Tetrahedron Numbers.*

Arising from Eike Hertel's paper, {Reguläre Dreieckspflasterungen konvexer Polygone}, we discuss tiling a regular tetrahedron with unit tetrahedrons and octahedrons. Ordering the tetrahedral constructions by size produces the sequence of tetrahedron numbers, which represents the number of unit tetrahedron volumes in a tetrahedral construction, which is the sequence of cubic integers. Truncating a tetrahedron by cutting away its corners, we discover a new sequence of integers. The sequence can be understood from various mathematical perspectives, and its complement is seemingly finite. Using methods of estimation and the squeeze theorem, a range can be given for the largest element in the sequence's complement. Further explorations would include proving a surjection from the sequence to the natural numbers. (Received September 20, 2015)