

1067-Z1-1957 **Mike Long*** (malong@ship.edu), 11 Independence Drive, Shippensburg, PA 17257. *Platonic Solid Puzzles and Patterns.*

Unique puzzles emerge when the decompositions of Platonic Solids into unit Platonic Solids, either of the same solid or combinations of the same and other solids, are considered. Even more interesting are the numeric sequences, primarily polygonal numbers or multiples of them, which emerge when counting the unit Platonic Solids. Some more unique puzzles and surprising sequences are found when other solids are decomposed into unit Platonic Solids as mentioned above. These decomposition patterns are made more convincing when Polydrons are used as visual aids. (Received September 22, 2010)