In mathematics, a space is a set (sometimes called a universe) with some added structure. While modern mathematics uses many types of spaces, such as Euclidean spaces, linear spaces, topological spaces, Hilbert spaces, or probability spaces, it does not define the notion of "space" itself. A space consists of selected mathematical objects that are treated as points, and selected relationships between these points. The nature of the points can vary widely; for example, the points can be elements of a Table of Contents. A Mathematical Space Odyssey: Solid Geometry in the 21st Century, Base Product Code Keyword List: dol; DOL; dol/50; DOL/50; dol-50; DOL-50. Print Product Code: DOL/50. Online Product Code: DOL/50.E. Title (HTML): A Mathematical Space Odyssey: Solid Geometry in the 21st Century. This book provides a valuable resource for the study of solid geometry that could be used by teachers all the way from late elementary school through college. -- Charles Ashbacher. A Mathematical Space Odyssey is an excellent and thorough introduction to the basic ideas of solid geometry. The liberal use of diagrams and figures provides good support for the mathematics presented. Find. Advanced. Mathematical Space Odyssey : Staff View. Cite this. Counting calissons -- 2.3 Using cubes to sum integers -- 2.4 Counting cannonballs -- 2.5 Partitioning space with planes -- 2.6 Challenges -- 3 Representation -- 3.1 Numeric cubes as geometric cubes -- 3.2 The inclusion principle and the AM-GM inequality for three numbers -- 3.3 Applications, to optimization problems -- 3.4 Inequalities for rectangular boxes -- 3.5 Means for three numbers -- 3.6 Challenges -- 4 Dissection -- 4.1 Parallelepipeds, prisms, and pyramids -- 4.2 The regular tetrahedron and octahedron -- 4.3 The regular dodecahedron -- 4.4 The frustum of a pyramid