

Download Euclidean And Non Euclidean Geometry Greenberg

This is the most comprehensive exposition of non-euclidean geometries, with an emphasis on hyperbolic geometry. Greenberg is didactic, clear, precise and gives here an illuminating treatment of those subjects, preceded by a very good review of both the euclidean background as well as the historical aspects. In mathematics, non-Euclidean geometry consists of two geometries based on axioms closely related to those specifying Euclidean geometry. As Euclidean geometry lies at the intersection of metric geometry and affine geometry, non-Euclidean geometry arises when either the metric requirement is relaxed, or the parallel postulate is replaced with an alternative one. No living geometer writes more clearly and beautifully about difficult topics than world famous Professor H. S. M. Coxeter. When non-Euclidean geometry was first developed, it seemed little more than a curiosity with no relevance to the real world. Non-Euclidean Geometry. In three dimensions, there are three classes of constant curvature geometries. All are based on the first four of Euclid's postulates, but each uses its own version of the parallel postulate. The "flat" geometry of everyday intuition is called Euclidean geometry (or parabolic geometry), and the non-Euclidean geometries are called hyperbolic geometry (or Lobachevsky-Bolyai ...