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Leonard, I. E.; Lewis, J. E.; Liu, A. C. F.; Tokarsky, G. W.

Solutions manual to accompany Classical geometry: Euclidean, transformational, inversive, and projective.

Hoboken, NJ: John Wiley & Sons (ISBN 978-1-118-90352-0/pbk; 978-1-118-90367-4/set). vi, 162 p. (2014).

Classical geometry is a very good introduction to modern mathematics. Main branches of classical geometry may be studied by both high school students and undergraduates. This textbook presents the solutions of the exercises from the book [the authors, Classical geometry. Euclidean, transformational, inversive, and projective. Hoboken, NJ: John Wiley & Sons (2014; Zbl 1296.51001)]. The text is divided into three parts. Part I includes the following topics from Euclidean plane geometry: Congruency, Concurrency, Similarity, Theorems of Ceva and Menelaus, Area and Miscellaneous topics. Part II Transformational geometry is devoted to a consideration of Euclidean transformations, The algebra of isometries, The product of direct isometries, Symmetry and groups, Homotheties and Tessellations. The final part contains introductory examples from inversive and projective geometries. This textbook is intended to high school students, undergraduates and teachers in mathematics.

Georgi Hristov Georgiev (Shumen)

Classification: G15 U45

Keywords: Euclidean plane geometry; constructive geometry; geometric transformations; projective geometry; solutions; exercises