IMPLEMENTING THEOREM PROVING IN GEOGEBRA BY EXACT CHECK OF A STATEMENT IN A BOUNDED NUMBER OF TEST CASES

ZOLTÁN KOVÁCS, TOMÁS RECIO, AND SIMON WEITZHOFER

ABSTRACT. A method for the automatic and exact verification of a geometry statement is presented, relying on its validity on a bounded number of instances. This is achieved by merely performing some arithmetic computations with integer coordinates. This approach seems particularly suitable for dynamic geometry software such as GeoGebra, that includes some symbolic computation features.

Johannes Kepler University of Linz E-mail address: zoltan @ geogebra.org

University of Cantabria

 $E ext{-}mail\ address:$ tomas.recio @ unican.es

Johannes Kepler University of Linz E-mail address: simon @ geogebra.org