

Rodriguez-Villegas' supercongruences: The elliptic curves

Eric Mortenson (mort@math.wisc.edu)

University of Wisconsin–Madison

Department of Mathematics

Van Vleck Hall

480 Lincoln Drive

Madison, WI 53706-1388

USA

Abstract. Fernando Rodriguez-Villegas conjectured a number of supercongruences for hypergeometric Calabi-Yau manifolds of dimensions less than or equal to three. Here we prove outright the four supercongruences for Calabi-Yau manifolds of dimension one, i.e. the elliptic curves.

