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Reorganizing School Mathematics for Quantitative Literacy.

This paper proposes replacing the Algebra-Geometry-Algebra rush to calculus model with one which focuses on improving student problem-solving skills and general quantitative literacy skills while reinforcing basic manipulative skills. Most of these goals are gained by expanding the current single year algebra course into a two year course. The model proposes moving “learning to write proofs” from the traditional geometry course into a separate discrete mathematics course. It requires statistics for every student, and requires a senior-level modeling course for every college going student. In addition, the proposed model creates opportunities for students to move at their own pace through the program by organizing courses in semester units rather than year-long units. (Received September 09, 2010)