

Abstract Submitted  
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**Play Ball!: The House That Euclid Built** AMANDA PILLSBURY, HOUMAN HAROUNI, Harvard Graduate School of Education, MACKENZIE HIRD, BRIAN MCCARTHY, Massachusetts Institute of Technology, YAN YANG, Harvard Graduate School of Education, ZENGXU YANG, Massachusetts Institute of Technology — Our video begins in the classroom. One student laments to his fellow classmates that his baseball team will be forced to forfeit their next game if they cannot find a field to play on. In response, the other students suggest constructing a baseball diamond of their own. As soon as the first student agrees, they all begin brainstorming ways to go about making a 90ft x 90ft perfect square, the dimensions of a standard MLB baseball diamond. First the students try using a protractor. They soon realize, however, that the scale of their project is too massive to rely on such a small instrument. Next, the students attempt to make a square using GPS technology. This time it is the margins of error on these machines that stymie their pursuit. Finally, one of the class members who has been silent to this point suggests that the answer lies in the 2000 year-old propositions of Euclid. Suddenly, the ancient Greek geometer himself appears in the distance ready to assist our students. Using a synthesis of Euclidian proofs, the students then construct a baseball diamond in time for the game. Play ball!

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