



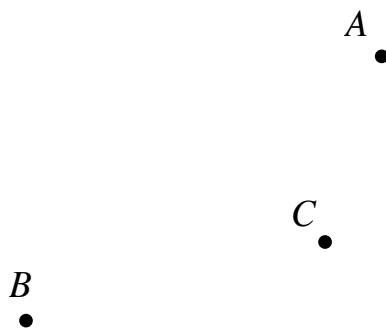
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MATH CHALLENGE

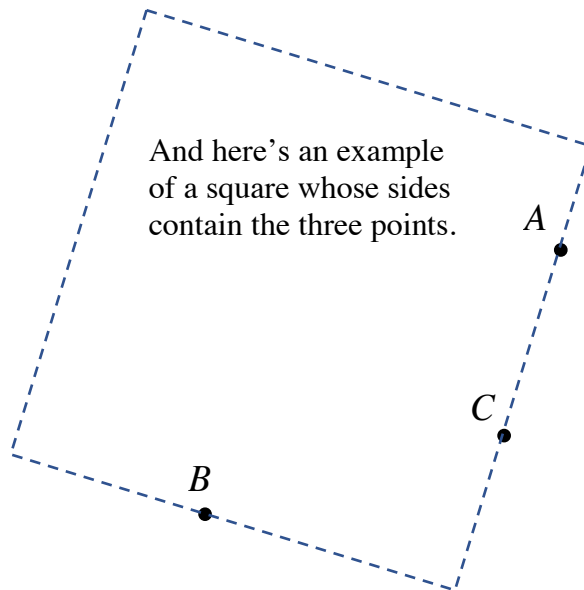
FOR APRIL 2018

Let A , B , and C be any three distinct points in the plane. **PROVE** that it is *always possible* to construct a square whose sides contain these three points?

Here's an example of three points in the plane.



And here's an example of a square whose sides contain the three points.



Please mail your *individual* solution, typed or neatly written, with your name, high school affiliation, and address to:

Timothy Sipka
Dept. of Mathematics & Computer Science
Alma College
Alma, MI 48801

For your solution to be considered for publication, it must arrive at Alma College by **April 30, 2018**.

Remember: The student whose solution is selected for publication will receive an Alma College t-shirt.

Visit the Math Challenge web site at www.mcs.alma.edu/hsmathchallenge/.

