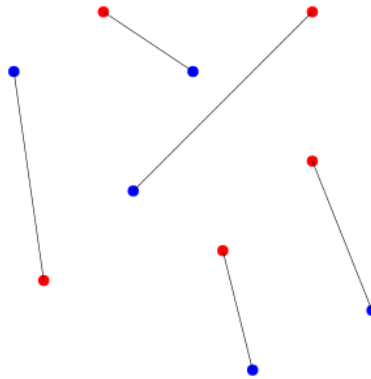# Problem of the Fortnight

"Don't cross me!"

Suppose we have five red points and five blue points in the plane, such that no three points lie on the same line. Prove that we can always draw five line segments such that:

- each line segment starts at a red point and ends at a blue point,

- each red point and each blue point is used exactly once as the end of a line segment, and

- none of the line segments intersect each other.

Here is a picture to illustrate:

Please turn in your solutions to Patrick Bennett, by noon on **Friday, October 12**. Strive for clarity, neatness and legibility! Solutions may be turned into the Math Dept office in 3319 Everett Tower. Electronic submissions may be sent to patrick.bennett@wmich.edu. Please include your name and email address. If you are currently taking a math class, please include the instructor's name and the course number.

http://www.wmich.edu/mathclub