PROBLEM OF THE WEEK #2

(Fall 2022)

Suppose we are given n blue points and n orange points in the plane, selected so that no three of the $2n$ points lie on a single line.

Prove that each of the blue points can be given its own orange partner in such a way that the line segments joining points to their partners do not cross.

[Please fully explain your answer.]

Email solutions to `kwonmi@uwplatt.edu` by 4:00pm on Wednesday, September 28, 2022.

Every week, the best solution submitted earns a \$10 Platteville gift certificate; the top scorer each semester also wins a cash award. Good luck!

You can always see the Problem of the Week (and complete rules) online at:

`http://uwpmath.weebly.com/`