

## MATH PROBLEM OF THE WEEK

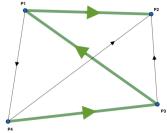
**Spring 2021** 

## **Problem 4**

Let  $p_1, \ldots, p_n$  be a set of  $n \ge 2$  points. Suppose that for any pair of points  $p_i$  and  $p_j$  for  $1 \le i < j \le n$  there is an arrow from  $p_i$  to  $p_j$   $(p_i \to p_j)$ , or from  $p_j$  to  $p_i$   $(p_j \to p_i)$ . Prove that there is a path

$$p_{i_1} \to p_{i_2} \to \cdots \to p_{i_n}$$

that includes all of the points.



We welcome solutions from everyone. The undergraduate participant from the NMSU main campus with the most correct solutions at the end of the semester will receive an award of \$500.

Solutions must be mathematically rigorous and originally obtained by the participants.

Deadline: Monday, April 26, 10 am