

You are in a corn maze where the corn makes a perfect grid of squares. Each square is 5 feet long and the entire maze is 10 squares by 10 squares. You and your friend Josey are lost. You are standing in the Northwest corner of the maze and Josey is standing in the Southeast corner of the maze. You each plan to walk across the maze and at each corner you plan to randomly choose which direction to travel in (you plan to only travel either south or east and Josey plans to only travel west or north). If you are only able to see in the direction that you are traveling, what is the probability that you find Josey before making it across the maze?

Undergraduates may submit solutions to the Mathematics Department office, 1150 FAB <u>or</u> by email to mathpow@wayne.edu by noon 10/17/2023. Include your name, ID number, and whether you have completed Math 2030 (or higher). For more information go to <u>https://clas.wayne.edu/math</u>. Solutions will be posted online and throughout the math department after the deadline.