

Math 339SP, Spring 2022 — More on absorption

Class on March 8

The following problem gets us working with ideas related to absorption *and* time.

Problem 1. Like in our last worksheet, a mouse is placed in the maze below, starting in room A . The trap is placed in room F and the piece of cheese is placed in room I . The nearest neighbor random walk dynamic from room to room remains. What is the expected number of times the mouse visits room A before it either finds the cheese or gets trapped? Room B ? What is the expected number steps (ie. rooms visited, counting repetition) before the mouse either finds the cheese or gets trapped?

