

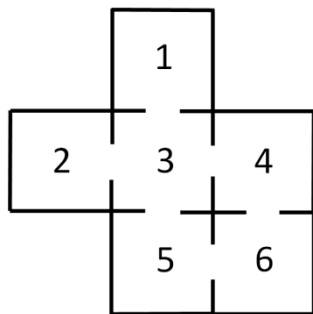
INDE 597

Homework 5

Due date 4/17

Pledged homework: you can use your class notes and any text or online sources, but don't collaborate with other students in the class. Cite any sources you have used.

- 1) A mouse is placed in Room 1 of the following maze, and a block of cheese is placed in Room 5. The mouse starts exploring the maze by repeatedly moving to a random adjacent room.



- Form a transition matrix M for the mouse's movements.
- Find a stationary vector for M .
- Does M have a limiting vector?
- What is the expected number of steps it will take the mouse to reach the cheese?

More questions may be added later