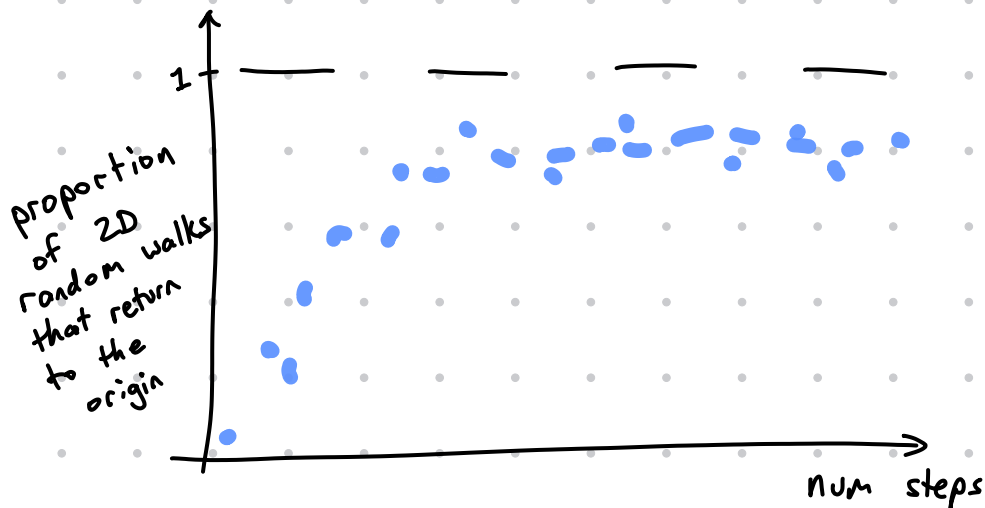
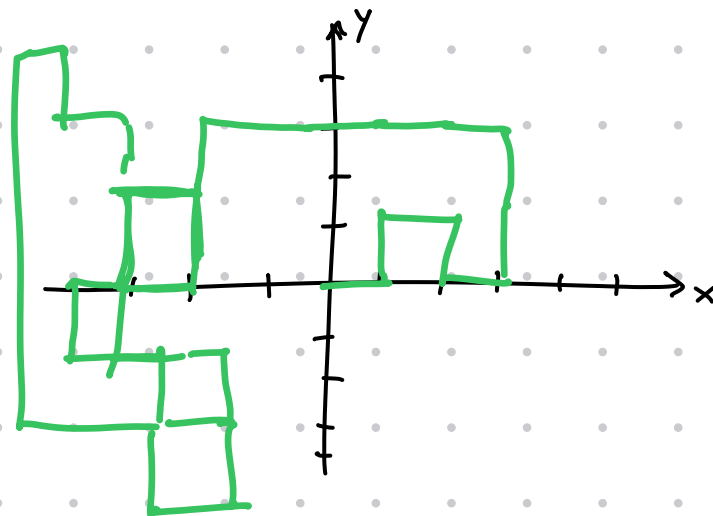


3 May 2024

Random Walks

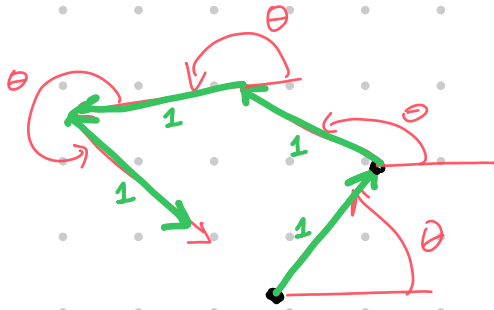
- 1D random walks return to the origin infinitely often
- After n steps, the average distance to the origin is proportional to \sqrt{n} for 1D and 2D random walks
- Do 2D random walks return infinitely often to the origin?



Does this proportion increase to 1?

Random Walk Project:

2-dimensional random walk



Each Step:

- random angle
- step length 1