

Markov Chains

Requirements

No required CBL or other equipment.

In this module we study probabilistic models using Markov Chains.

Be sure to send your instructor email in the usual format.

Questions

1. Explain why all the entries in each column of the table describing the probabilities for moving from each state to each other state add up to one.
2. What is the probability that a player wins the original game? Compare your answer to the answer you obtained in the previous section.
3. What is the probability that a player playing the four-sided dice game wins? Compare your answer to the answer you obtained in the previous section.
4. What is the probability that a player playing the twelve-sided game wins? Compare your answer to the answer you obtained in the previous section.
5. Use the method developed in this section to analyze the timid roulette player's strategy in the Probabilistic Models section of Chapter 1