

Names:

CMPSCI 240  
Reasoning Under Uncertainty  
Discussion 10

Suppose we have the following set of webpages and links among them:

- Page 1 links to pages 2, 3, and 4.
- Page 2 links to page 4 only.
- Page 3 links to pages 1 and 4.
- Page 4 links to page 3 only.

Draw the Markov chain state transition diagram corresponding to this set of webpages.

Write down the transition matrix for this chain.

Find the (simplified) PageRank score for each webpage by finding the steady state distribution of the chain. (Hint: write down 5 simultaneous equations in 4 variables and then solve them.)