

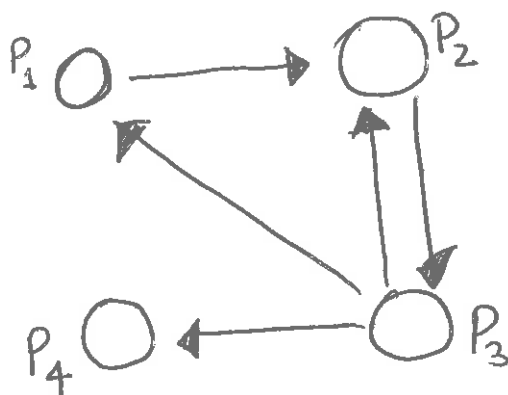
Additional Homework Problems

Math 22

November 5, 2015

1. For the web below:

- (a) Write the matrix H corresponding to the web.
- (b) Write the matrix S corresponding to the web.
- (c) Write the Google matrix G for this web.
- (d) Find the importance vector



2. Prove that the google matrix is stochastic.

Recall that $G = \alpha S + (1 - \alpha) \frac{1}{n} \mathbf{1}$, where $\mathbf{1}$ is the $n \times n$ matrix of all 1's.