

Finding the Steady State Matrix of a Markov Chain

- (1) Check to see that the matrix of transition probabilities P is a regular matrix.
- (2) Solve the system of linear equations obtained from the matrix equation $P\bar{X} = \bar{X}$ along with the equation $x_1 + x_2 + \cdots + x_n = 1$.
- (3) Check the solution found in Step 2 in the matrix equation $P\bar{X} = \bar{X}$.