Comes from reference 1.

Suppose baboons are observed to be eating (E), grooming (G), or resting (R). A biologist records their activities every 15 minutes and estimates that if a baboon is eating at one period, at the next 15 minute period the animal will be eating or resting with the probabilities 0.3 and 0.6, respectively. If grooming at one observation, in 15 minutes they are likely to be grooming with a 0.3 probability or eating with a 0.4 probability. If resting at one time period, at the next observation the probabilities a baboon will still be resting or will instead be eating are 0.8 and 0.2, respectively.

1) Using the order E, G, and R for rows and columns, develop a transition matrix, T, for this problem.
2) Suppose when the study began, 30% of the baboons were eating, 10% were grooming, and 60% were resting. Using the model from Part a, give estimates for the percentages of baboons in each state 15 minutes later.