The Markov Property

- Explain why conditional probabilities are used in models that tell us about the future. If absolute probabilities are used in such models what does this tell us about the relation between the events in the past and in the present and events in the future.

- Complete the following statement: The conditional probability $P(T_2 = c|T_0 = a, T_1 = b)$ gives the likelihood of being in state c ? steps in the future given that you are currently in state ? ? given that you were in state ? in the past.

- Give a mathematical statement for the Markov property and explain the meaning of the word homogeneous.

- Give a description of the behavior of a example system that has the Markov property but which is not homogeneous.

The Markov Property

- Write out the full transition matrix for the transition graph shown in the video.