Lecture 2 notes

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These definitions complement Sect. 1.1 of the text.

1) For a discrete random variable X, we say a real number x is a *possible value of X* if $P(X = x) > 0$.

2) A *discrete-time Markov chain* with *state space S* is a sequence of random variables X_0, X_1, X_2, $\cdots$, defined on a probability space (Ω, P), such that $P(X_n \in S) = 1$ for all n and (X_n) has the Markov property (as defined in the book).