M 362K Synopses for 2/10

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If a variable X is a numerically valued function whose domain is the sample space of probability experiment with a finite or countably finite number of outcomes, then we can say that X is a discrete random variable. A table which indicate the value of $Pr(X = x)$ is called the probability distribution. This table gives a concrete view of how the probability is distributed. Of course, each probability in the distribution should be larger than 0 and less of equal to 1 and the sum of all probabilities should be 1.

As for a cumulative distribution function, it follows $Pr(X = x_i) = F(x_i) - F(x_{i-1})$ and $F(\infty) = 1$. The CDF function can be represented by ogive graph and CDF graph.