1. What is the probability that
   (a) a coin tossed twice lands heads each time?
   (b) a fair die rolled three times in succession results in 1 each time?

2. What is the probability that
   (a) the first two cards in a shuffled deck are red?
   (b) in a random sample of two students in our class, both are female?
   (c) that three randomly chosen people all have different birthdays?

3. Conditional probability – \( P(A \mid B) \)

4. \( P(A \text{ and } B) \)

5. Trees.

6. Independence

7. A binomial random variable.
   \( n \) independent trials, probability \( p \) of success on each trial. Count number of successes.

\begin{verbatim}
> dbinom(9,10,.9)  # dbinom(x,n,p) x successes, n trials, prob of success p
[1] 0.3874205
\end{verbatim}

**Homework**
1. Read Devore and Farnum pages 204–307
2. Do problems 5.3.18,20