

All the problems below are from the textbook.

- Problems: P1, P11, P16, P19, P39
- Theoretical Exercises: T1, T2, T6, T9

Also solve the following additional problem.

A1: Suppose that  $n$  independent trials, each of which results in any of the outcomes 0, 1 or 2 with respective probabilities  $p_0, p_1$  and  $p_2$ , where  $\sum_{i=0}^2 p_i = 1$ , are performed. Find the probability that outcomes 1 and 2 both occur at least once.