HOMEWORK SET 1 (due back in class, Thursday February 1)
From Grimmett-Stirzaker (textbook)
Section 1.2 Problems 1 and 3
Section 1.3 Problem 1 (and generalize to the case when \( P(A) = a \) and \( P(B) = b \))
Problem 4
Section 1.8 Problem 5

Readings (a) Appendix III, especially remarks on interpretation of probability on page 572; (b) Pages 1-15 of chapter 1. (c) PSK lecture notes – up to and including Counting Lecture page 5.

Comment: The empty set is the impossible event, since in an experiment an (elementary) outcome cannot fall in the empty set. The term null event is used for any event to which we have assigned probability zero. The impossible event is a null event. Converse is not true in general, as there may be probability assignments leading to zero probability for some non-empty subsets of the sample space.