

Stat 851 Winter 2008
Assignment #1

This assignment is due on **Friday, January 18, 2008**.

1. Suppose that Ω is the space $\Omega = \{a, b, c, d\}$. Let $\mathcal{C} = \{\emptyset, \{a, b\}, \Omega\}$.
 - (a) Carefully prove that \mathcal{C} is not a σ -algebra of subsets of Ω .
 - (b) Let $\mathcal{A} = \sigma(\mathcal{C})$ denote the smallest σ -algebra containing \mathcal{C} . List the members of \mathcal{A} explicitly.
2. Complete the following exercises from pages 12–13:
 - #2.1, 2.2, 2.3, 2.6, 2.9, 2.10, 2.11, 2.12, 2.14, 2.15, 2.17