Statistical Inference Chapter 1

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1. (a) $\Omega = \{(x_1, x_2, x_3, x_4) : x_i \in \{H, T\}\}$.
   (b) If there are N leaves on the plant, $\Omega = [N]$.
   (c) $\Omega = \{t : t \in \mathbb{R},\ t \geq 0\}$.
   (d) $\Omega = \{w : w \in \mathbb{R}_+\}$.
   (e) If there are n components, $\Omega = \{i/n : i \in \{0, 1, ..., n\}\}$.
2. (a)

$$\begin{aligned} x \in A - B &\implies x \in A \text{ and } x \notin B \\ &\implies x \in A \text{ and } x \notin A \cup B \\ &= s \end{aligned}$$

   (b) part b)