

6. Consider rolling two fair dice one at a time. The sample space of this experiment was given during the lectures on set theory. Let $\mathcal{P}_{\mathcal{S}}$ represent the power set on \mathcal{S} . Finally, define the function P by

$$P(A) = \frac{C(A)}{36} \quad \text{for } A \in \mathcal{P}_{\mathcal{S}}.$$

Prove that $P(A)$ satisfies Kolmogorov's Axioms.