

Theorem 0.0.1 (measurability of a function). *Let \mathcal{C} be a class of subsets of Ψ such that $\sigma(\mathcal{C}) = \mathcal{G}$. In order for a function $X : \Omega \rightarrow \Psi$ to be measurable with respect to \mathcal{A} and \mathcal{G} , it is necessary and sufficient that $X^{-1}(\mathcal{C}) \subseteq \mathcal{A}$.*