0.1 Axioms for measures

0.1.1 Measures are non-negative

$\forall E \in \Sigma : \mu(E) \geq 0$

0.1.2 The measure for the null set is 0.

$\mu() = 0$

0.1.3 Disjoint sets are additive

$\mu(\vee_{k=1}^{\infty} E_k) = \sum \mu(E_k)$

Where all elements E_k are disjoint. That is, they have no elements in common.