

Define

(1) the denumerable set

- A set A is said to be denumerable set if there exists a bijection $f: \mathbb{N}_+ \rightarrow A$.

(2) measurable set (condition)

- the member of M are called measurable set if M is σ -algebra in X , (X, M) is called measurable space

(3) measurable Partition set to A

- if (X, M) is a measurable space, the collection is called a denumerable measurable Partition of A if $A = \bigcup_{n=1}^{\infty} A_n$ and $A_n \in M$ for every $n \in \mathbb{N}_+$.

(4) Positive measure

- if (X, M) is a measurable space a content μ defined on the σ -algebra M is called a positive measure if it has the following property:

For any disjoint denumerable collection $(A_n)_{n \in \mathbb{N}_+}$ of members of M

$$\mu\left(\bigcup_{n=1}^{\infty} A_n\right) = \sum_{n=1}^{\infty} \mu(A_n).$$