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ON METRIZABLE SPACES

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Abstract: In this paper we have discussed the some results on topological metric spaces.

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1. Introduction

In this paper we proved the equivalence of some metrization theorems, modified single sequence theorem ,modified double sequence theorem , we also defined metric topologies, Before that, however, we want to give a name to those topological spaces whose topologies are metric topologies.

Definition *A topological space (X, T) is said to be metrizable if there is a metric d on X that generates T. Due to the fact that very different looking metrics can generate the same topology, we usually talk about metrizable spaces rather than about metric spaces. The particular details of a metric are often not important to us. We care about the topologies they generate. As a topological property, metrizability is very well-behaved.*

2. Main Results

Theorem 2.1. *If a topological space R*

1.1 *is a T_0 space.*

1.2 *has a neighbourhood basis $\{W_n(p) : n = 1, 2, 3, ...\}$ at each point p of R.*