

In the presented work we study methods that have been used to determine properties of some sets, existence of which was proven non-constructively. Our main objective was to study properties of set B , subset of real line such that sum is both injective and onto real line. Mostly we were concerned whether this set could be Borel. In this thesis, we mostly present known results with some connection to this problem. We show that set B cannot be F_σ , but may be measurable with respect to Lebesgue measure. Also we show some partial results concerning σ -porosity and Hausdorff dimension of set B .