

# Non-normality points of $\beta X \setminus X$

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## Abstract:

A topological space  $Y$  is called **normal** if every pair of disjoint closed subsets of  $Y$  can be separated by a pair of open subsets of  $Y$ . Normality is not a hereditary property. That is, if  $Y$  is normal and  $Z$  is a subspace of  $Y$ , it is not necessarily the case that  $Z$  is normal. If  $Y$  is normal and an element  $y$  of  $Y$  is such that the subspace  $Z = Y \setminus \{y\}$  is not normal,  $y$  is called a **non-normality point** of  $Y$ .

The Stone-Čech compactification of a Tychonoff space  $X$ , denoted  $\beta X$ , is the largest compactification of  $X$ . We discuss non-normality points of  $\beta X \setminus X$  when  $X$  is a discrete space or, more generally, a locally compact metric space.