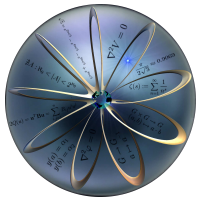

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T3 space

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Defines	regular
Defines	regular space

A *regular space* is a topological space in which points and closed sets can be separated by open sets; in other words, given a closed set A and a point $x \notin A$, there are disjoint open sets U and V such that $x \in U$ and $A \subseteq V$.

A T_3 *space* is a regular `http://planetmath.org/T0Space`T_0-space. A T_3 space is necessarily also T_2, that is, Hausdorff.

Note that some authors make the opposite distinction between T_3 spaces and regular spaces, that is, they define T_3 spaces to be topological spaces in which points and closed sets can be separated by open sets, and then define regular spaces to be topological spaces that are both T_3 and T_0. (With these definitions, T_3 does not imply T_2.)