



Math for the people, by the people.

## isolated

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Entry type	Definition
Classification	msc 54A05
Synonym	discrete set
Defines	isolated set
Defines	isolated point

Let  $X$  be a topological space, let  $S \subset X$ , and let  $x \in S$ . The point  $x$  is said to be an *isolated* point of  $S$  if there exists an open set  $U \subset X$  such that  $U \cap S = \{x\}$ .

The set  $S$  is *isolated* or *discrete* if every point in  $S$  is an isolated point.