

Name:

Problem 1: *Let X be a topological space and $A \subset X$. Give the definition of a limit point of A .*

Solution: The definition is that $x \in X$ is a limit point of A if $x \in \overline{A - \{x\}}$. Equivalently, one can say that $x \in X$ is a limit point of A if every neighborhood of x intersects A in a point different from x .