

Definition 8.18. [OGY] Given $A \subseteq X$, a point $x \in X$ is an **accumulation point** for A if, for every neighborhood U of x , $U \cap A \setminus \{x\}$ is not empty.^a

The set of all accumulation points of A is called **derived set** and will be indicated with $D(A)$.

^aWe could call $U \setminus \{x\}$ a "deleted neighborhood"; so we are asking that the deleted neighborhood $U \setminus \{x\}$ has non-empty intersection with A ; as we already did in [OBG].