# bounded

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Given a metric space $(X, d)$, a subset $A \subseteq X$ is said to be *bounded* if there is some positive real number $M$ such that $d(x, y) \leq M$ whenever $x, y \in A$.

A function $f : X \to Y$ from a set $X$ to a metric space $Y$ is said to be *bounded* if its range is bounded in $Y$.