Consequences of continuity

Given a sequance $\vec{x}_1, \vec{x}_2 \cdots \in \mathbb{R}^n$ and a continuous function $f : \mathbb{R}^n \mapsto \mathbb{R}$, $f(\lim_{m\to\infty} \vec{x}_m) = \lim_{m\to\infty} f(\vec{x}_m)$.