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## Bolzano-Weierstrass theorem

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Synonym Bolzano-Weierstraß theorem

Related topic ConvergentSequence Related topic SequentiallyCompact

 $Related\ topic \qquad Alternate Statement Of Bolzano Weierstrass Theorem$ 

Given any bounded sequence  $(a_n)$  of real numbers, there exists a conver-

gent subsequence  $(a_{n_j})$ . More generally, any sequence  $(a_n)$  in a compact subset of a metric space has a convergent subsequence.