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4.13

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Posted: Fri, 08 May 2020 03:11

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Let $f: D \rightarrow \mathbb{R}$ be a Lipschitz function on D . Then f is uniformly continuous on D .

Math Cadet

Let $\epsilon > 0$ and we choose $\delta = \frac{\epsilon}{M}$

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If $|x-y| < \delta$, then $|f(x) - f(y)| \leq M |x-y| < M \delta = \epsilon$

Since δ did not depend on x or y we see that f is uniformly continuous.

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Correct. 1 credit for Maria.

Site Admin

The greater danger for most of us lies not in setting our aim too high and falling short; but in setting our aim too low, and achieving our mark. - Michelangelo Buonarroti



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