

Math 131A Section 6: Homework 6, Due 5/20 in TA session

1-7. 18.4, 18.8, 18.12, 19.9, 19.12, 20.14, 20.16

9. Show that $f(x) = \sqrt{x}$ is uniformly continuous in $[0, 1]$, using only the definition of the uniform continuity.

10. Show that if $f : S \rightarrow \mathbb{R}$ is uniformly continuous and if S is bounded, then $f(S)$ is bounded. Is the statement true if f is merely continuous?