

21-131 Assignment 11: due Tuesday November 18

11.1–3. From Apostol page 145, do problems 2c, 4, 5

11.4–6. From Apostol page 155, do problems 1, 3, 4, 7

11.7. Show that the function $\cos(\pi/x)$ is *not* uniformly continuous on the interval $(0, 1]$. (This is an example of a function that is bounded and continuous but not uniformly continuous, on an interval that is bounded but not closed.)

11.8. Suppose that f is L -continuous on a set $I \subseteq \mathbb{R}$ for some $L > 0$. Prove that f is uniformly continuous on I .