MATH 150A-QUIZ 7, WINTER 2019

Name: _____

1. (5pts) Construct a continuous function $f : I \to \mathbb{R}$ on a bounded interval I with the following property: f is bounded on I and has a minimum. But f has no maximum on I. In this case, it possible that I is a closed interval? Why?

2. (5pts) Let $f : I \to \mathbb{R}$ be a continuous function on a bounded, closed interval $I = [a, b]$. Show that f has a minimum on I.