# HW 8

Problem 1: 32.7,33.3,33.4;

Problem 2: 33.6,33.7,33.8;

Problem 3: Assume $(x_n)$ is a sequence in $[0,1]$ with $\lim x_n = 0$. Let $f : [0,1] \to \mathbb{R}$ defined by $f(x) = 1$ if $x = x_n$ for some $n$, and $f(x) = 0$ otherwise. Prove that $f$ is integrable and $\int_0^1 f = 0$.