MATH 460 **Name:**
Homework 8, Fall 2022

I have neither given nor received unauthorized assistance on this assignment.

Homework 8 has questions 1 through 2 with a total of 0 points. Neatly **hand write your solutions**, digitize your work, and turn it into Canvas. You do **not** need to use LaTeX for this assignment. This work is due *Saturday 15 October at 11:59* PM.

1. Show that $1 \notin \mathrm{LP}(\mathbf{Z})$.

2. Let $A, B \subset \mathbf{R}$. Show that $A \subset B \implies LP(A) \subset LP(B)$. To do this, use the fact that for any subset C of $\mathbf{R}$, we have

$$x \in LP(C) \equiv (\exists F \in \mathbf{Z}_{\geq 0} \to C)(\lim_{\infty}(F) = x)$$

   Or, if you prefer in words: a number x is a limit point of a set C if and only if there is a sequence F such that F converges to x and range$(F) \subset C$.