MA3190.03

Problem Set No. 4

Dept. of Mathematics and Statistics

Date: March 23, 1999
Due: April 8, 1999

1. If $\mathbb{P}$ is left-narrow, then $\mathbb{P}^n(a)$ is a set for all $n > 0$ and all a.

2. Prove that $\mathrm{Lim}(\alpha)$ iff $\alpha \neq 0$ and $\alpha = \bigcup \alpha$.

3. Show that $\omega \sim \omega + 2$.

4. Show that the set of finite subsets of ω is enumerable.
(*Hint.* Identify these sets with their characteristic functions.)

5. Prove that if an infinite set A has an enumeration $a_0, a_1, \ldots$, then it has one where every member $b \in A$ is enumerated infinitely often.