Morales

MA 538

Fall 2021

HOMEWORK 8

22. Let A be a bounded subset of $\mathbb{R}^n$. Show that A is totally bounded.

23. Show that every sequentially compact metric space X is separable.

24. Let X be compact and let $f : X \to \mathbb{R}$ be upper semi-continuous. Show that it attains its supremum.

DUE : October 28, 2021