

Homework 8

Due Monday, March 19 in class (1:00pm)

Follow the same instructions given on [Homework 1](#).

(—) From the textbook: 24.1, 24.3, 24.8, 25.2, 26.3, 26.6

(P1) Let U be an open subset of \mathbb{R}^n in the standard topology. Show that U is connected if and only if U is path connected.

(P2) Let X denote the set $[0, 1]$ with the lower limit topology (that is, consider it a subspace of \mathbb{R}_ℓ). Is X compact?