

MATE 4052 assignment 8

25–27. Exercises 3.7, 3.8, 3.9.

28. Let f map the interval $[a, b]$ to the Banach space E . Assume that

$$\forall x \in]a, b], \forall \varepsilon > 0, \exists \eta > 0 : (s, t \in (x - \eta, x) \Rightarrow |f(s) - f(t)| \leq \varepsilon).$$

Show that f has a left limit at each $x \in]a, b]$.