Exercises

E12.2 [13Z] Let $f_1 : [0, \infty] \to [0, \infty]$ monotonic function (weakly increasing) and right continuous. Let then $f_2 : [0, \infty) \to [0, \infty]$ be given by

$$f_2(s) = \sup\{t \geq 0 : f_1(t) > s\}$$

(with the convention that $\sup \varnothing = 0$) and then again $f_3 : [0, \infty) \to [0, \infty]$ defined by

$$f_3(s) = \sup\{t \geq 0 : f_2(t) > s\} \quad :$$

then $f_1 \equiv f_3$.

Solution 1. [140]