

## Exercises

13.18 [15W] Let  $I \subseteq \mathbb{R}$  be an interval, and let  $f : I \rightarrow \mathbb{R}$  be uniformly continuous. Let  $\omega$  be the continuity modulus, defined by the eqz. [(13.16)], as in the exercise [156]. Show that  $\omega$  is subadditive i.e.

$$\omega(t) + \omega(s) \geq \omega(t + s) \quad .$$

Knowing that  $\lim_{t \rightarrow 0+} \omega(t) = 0$  we conclude that  $\omega$  is continuous.

**Solution 1.** [15X]

[ [15Y] ]