

## Exercises

14.31 [18J] Let  $f : (a, b) \rightarrow \mathbb{R}$  be convex. Show that, for every closed interval  $I \subset (a, b)$ , there exists a constant  $C$  such that  $f|_I$  is Lipschitz with constant  $C$ . Provide an example of a continuous and convex function defined on a closed interval that is not Lipschitz.