

Exercises

14.25 [18C] Prerequisites: [184], [188]. Note: A vice versa of [183].

Let $C \subset \mathbb{R}^n$ be an open convex set; suppose that $f : C \rightarrow \mathbb{R}$ is convex; sequences $(a_h)_h \subseteq \mathbb{R}$, $(v_h)_h \in \mathbb{R}^n$ exist (for $h \in \mathbb{N}$), such that $f(x) = \sup_{h \in \mathbb{N}} (a_h + v_h \cdot x)$.

Solution 1. [18D]