

Exercises

E17.e.8 [1HH] Prerequisites: [2BH]. Show that a necessary condition for $x \in A$ to be a local minimum of f bound to F_a , is that,

- either $\varphi(x) < a$ and $\nabla f(x) = 0$,
- or $\varphi(x) = a$ and $\nabla f(x) + \lambda \nabla \varphi(x) = 0$ with $\lambda \geq 0$.

These are the **Karush–Kuhn–Tucker** conditions.

Solution 1. [1HJ]