Exercises E17.e.10 [1HM]Prerequisites: [2BH]. Find a simple example in the case n =

2 where the point x is not a local minimum for f bound to F_a , but $\varphi(x) = a$ and $\nabla f(x) + \lambda \nabla \varphi(x) = 0$ with $\lambda > 0$.

Solution 1. [1HN]