

Definition 17.e.6. *[2BH]* Let

$$F_a = \{x \in A : \varphi(x) \leq a\} \quad ;$$

we always assume that F_a is non-empty and that $\nabla \varphi(x) \neq 0$ for each $x \in F_a$.

*We call **local minimum point of f bound to F_a** a point of F_a that is of local minimum for $f|_{F_a}$; and similarly for maxima.*