```
?
                                                                                                                                                                                                                         \min_{x} f(x)s.t.x \in X.
(1)
                                                                                                                                                                                                                         f: \stackrel{n}{X} \stackrel{\longrightarrow}{\subset} \stackrel{n}{X} \xrightarrow{f} \stackrel{n}{\to} \stackrel{\longrightarrow}{\to} \stackrel{\longrightarrow}
                                                                                                                                                                                               \begin{array}{l} f:^n \rightarrow \\ \sup b^- \\ d \\ if- \\ fer- \\ en- \\ tially \\ reg- \\ u^- \\ x \in ^n \\ epi(f) := \{(x,\alpha) \in ^n \times \mid \alpha \geq f(x)\} \end{array}
                                                                                                                                                                                               \begin{array}{l} \bar{x}, f(\bar{x}) \\ f \\ f \\ f(x) \\
                                                                                                                                                                                                            \begin{array}{l} \partial_{f}(x) \\ \partial_{f}(x) \\ f \\ g \in \partial_{[\theta]} f(x) \Leftrightarrow g \in \partial(f + \theta \| \cdot - x \|)(x) \end{array}

\begin{array}{c}
\overrightarrow{f}(x) \\
f \\
x \\
\partial_{[\varepsilon]} f(x) \\
\varepsilon \\
f(x) \\
\varepsilon \\
pot
\end{array}

                                                                                                                                                                                                            \partial_{\theta} f(x) \subset \partial_{[\theta']} f(x)
                                                                                                                                                                                                                         egin{array}{c} 	heta' \ 	heta' \ 	heta' \end{array}
                                                                                                                                                                                               \begin{array}{l} f'_{\cdot} \\ \bar{\sigma}, \bar{\sigma} > \\ 0 \\ and \\ 0 \leq \\ \theta_{j} \leq \\ \bar{\theta} \forall j \in \\ J^{k}_{\cdot} \\ f_{j}^{k} \\ f_{j}^{k} \\ f_{k}^{x_{j}} \\ f_{k}^{k} \\ f_{k}^{k} \\ f_{k}^{k} \\ f_{k}^{r} \\ f_{j}^{r} \\ f_{k}^{r} \\ f_{j}^{r} \\ f_{k}^{r} \\ f_{k
                                                                                                                                                                                                            \underset{f}{prox}_{t,f+\eta/2||\cdot-x||^2}(x).
```