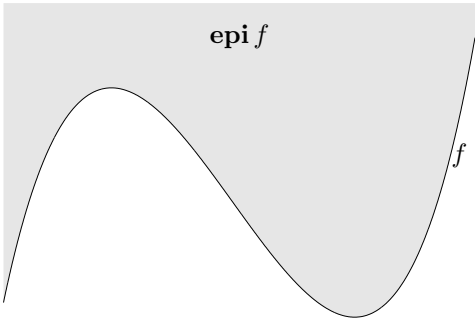


epi f

f





The diagram illustrates the concept of a subdifferential in convex analysis. It features a light gray shaded region labeled $\text{epi } f$, which represents the epigraph of a function f . The boundary of this region is a convex curve. A specific point on this boundary is marked with a black dot and labeled $(x, f(x))$. Two straight lines are drawn from the bottom left towards this point: one is tangent to the curve at the point, and the other is a secant line. An arrow points from the text $(\nabla f(x), -1)$ to the secant line, indicating that this vector is an element of the subdifferential of f at x .

$\text{epi } f$

$(x, f(x))$

$(\nabla f(x), -1)$

