Convexity of Loss Functions

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I would like to dig into the convexity of loss functions.

What is a convex function

$f : X \to \mathbf{R}$, where X is a convex subset of a real vector space, and f is called convex if and only if

$$f(tx_1 + (1-t)x_2) \le tf(x_1) + (1-t)f(x_2)$$