$y = \sin x + x \quad [0; \pi]$.

$y' = \cos x + 1$

$y' = 0$; $\cos x + 1 = 0$

$\cos x = -1$

$x = \pi + 2\pi k, \; k \in Z$.

из отрезка $[0; \pi]$ $x = \pi$.

$y(0) = \sin 0 + 1 = 0 + 1 = 1$

$y(\pi) = \sin \pi + \pi = 0 + \pi = \pi$

Наименьшим $y_{наим} = 1$, при $x = 0$.