Problema 1.

$F(x) := x - \left(1 + \frac{1}{x}\right)^x$ $\quad F_1(x) := x - \left(2 + \frac{2}{x} + \frac{2}{x^3}\right)^x$ $\quad F_2(x) := x - \left(2 + \frac{2}{x} + \frac{2}{x^3} + \frac{2}{x^3}\right)^x$

$L := F(x) = 0 \text{ solve} \rightarrow 2.2931662874118610315$

$L := F_1(x) = 0 \text{ solve} \rightarrow 0.08182588320705964077 + 0.46567148392391967268i$

$L := F_2(x) = 0 \text{ solve} \rightarrow -0.028655675496913800231 + 0.48035940557452627859i$

$x := 1.5 \quad F(x) = -0.652$

Given $\quad F(x) > 0 \quad s := \text{Minimize}(F, x) \quad s = 2.292 \quad F(s) = -7.698 \times 10^{-4}$