Problema 3.

$$V(x) := \ln\left(2 + \frac{2}{x}\right) - \left(2 + \frac{2}{x}\right)^{2x} \qquad V_1(x) := \ln\left(3 + \frac{1}{x}\right) - \left(3 + \frac{1}{x} + \frac{1}{x^3}\right)^{2x}$$

$$V_2(x) := \ln\left(3 + \frac{1}{x}\right) - \left(3 + \frac{1}{x} + \frac{1}{x^4} + \frac{1}{x^3}\right)^{x}$$

$L := V(x) = 0 \text{ solve} \rightarrow -2.7890912179172525044$

$L := V_1(x) = 0 \text{ solve} \rightarrow -1.0469690259458401748$

$L := V_2(x) = 0 \text{ solve} \rightarrow -0.74811567081794959203$

$x := 1.5 \qquad V(x) = -35.833$

Given $\quad V(x) > 0 \quad s := \text{Maximize}(V, x) \quad s = 3.226 \times 10^{-7} \quad V(s) = 14.64$