3. Functia lui Foias

$$W(x) := 2 + x - \left(2 + \frac{2}{x}\right)^{\cos(x)} \qquad W_1(x) := 2 + x - \left(2 + \frac{2}{x} + \frac{2}{x^3}\right)^{\cos(x)}$$

$$W_2(x) := 2 + x - \left(2 + \frac{2}{x} + \frac{2}{x^3} + \frac{2}{x^4}\right)^{\cos(x)}$$

$L := W(x) = 0 \text{ solve} \rightarrow -1.2503877911025559781$

$L := W_1(x) = 0 \text{ solve} \rightarrow -1.4666340371977880851$

$L := W_2(x) = 0 \text{ solve} \rightarrow -1.3031958286678472054$

$x := 0.5 \qquad W(x) = -2.318$

Given $\quad W(x) > 0 \quad s := \text{Minimize}(W, x) \quad s = 0.81 \quad W(s) = -5.571 \times 10^{-5}$