EP 393 — Problem R1

Find the root(s) of the function

$$f(x) = 3x^{2} + \frac{1}{\pi^{4}} \ln\left[\left(\pi - x\right)^{2}\right] + 1 = 0.$$

Careful, this is a pathological function. I suggest doing some analysis to determine where the roots might be before you attempt a numerical solution. In this case, your analysis should discourage you from attempting a numerical solution.