1. Verify that the function

\[ f(x) = x^4 + 1 \]

satisfies the hypothesis of the Mean Value Theorem on the closed interval \([0, 2]\). Then find all numbers \(c\) that satisfy the conclusion of the Mean Value Theorem.

2. Find the absolute maximum and minimum values of \(f(x) = x^4 - 4x + 1\) on the interval \([0, 2]\).