

Second set of Problems. Second part of two.

1. Give an algorithm for computing all zeros of a function $f : [a, b] \rightarrow \mathbb{R}$, $f \in \mathcal{C}^1$, using interval arithmetic.
2. Generalize the previous algorithm for functions defined in boxes in \mathbb{R}^n .
3. Give an algorithm for computing all zeros of a polynomial. Is this algorithm different from the one you gave in Exercise 1?