Homework #0

Raja Kantheti

August 26, 2024

1 Problem 1

Determine whether all entries of array A are distinct, that is, return *True* if there are no duplicate entries in A, and *False* otherwise.

1.1 pseudocode

1.2 Demonstration of Operation

2 Problem 2

Compute $\lfloor \sqrt{n} \rfloor$ for any positive integer n. Besides assignment and comparison, your algorithm may use only the four basic arithmetical operations $(+, -, *, /)$.

2.1 pseudocode

2.2 Demonstration of Operation

3 Problem 3

Compute the product mn for any positive integers m and n, using only addition $(+)$.

3.1 pseudocode

3.2 Demonstration of Operation

4 Problem 4

Compute the quantity m^n for any positive integers m and n, using only addition $(+)$ or your algorithm from Question 3.