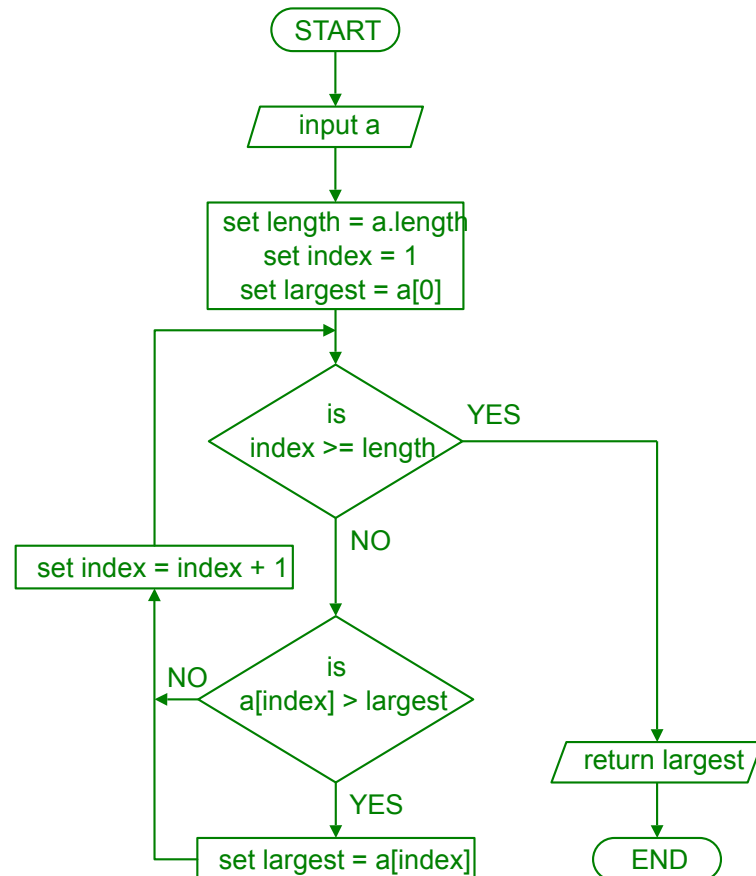


Worksheet: Linear Search for the Largest Value©2024 Chris Nielsen – www.nielsenedu.com

1. Draw a **flowchart** that represents a **linear search** algorithm that will find the largest value in an array, then write the **pseudocode** for the flowchart as a **function** named **maximum**.

- **Inputs:** the array (call it **a**).
- **Output:** the largest value found in the array

Subprocess: maximum

```
FUNCTION maximum(a)
BEGIN FUNCTION
  SET length TO LENGTH(a)
  SET index TO 1
  SET largest TO a[0]
  WHILE(index < length) DO
    IF (a[index] > largest) THEN
      SET largest TO a[index]
    END IF
    SET index TO index + 1
  END WHILE
  RETURN largest
END FUNCTION
```