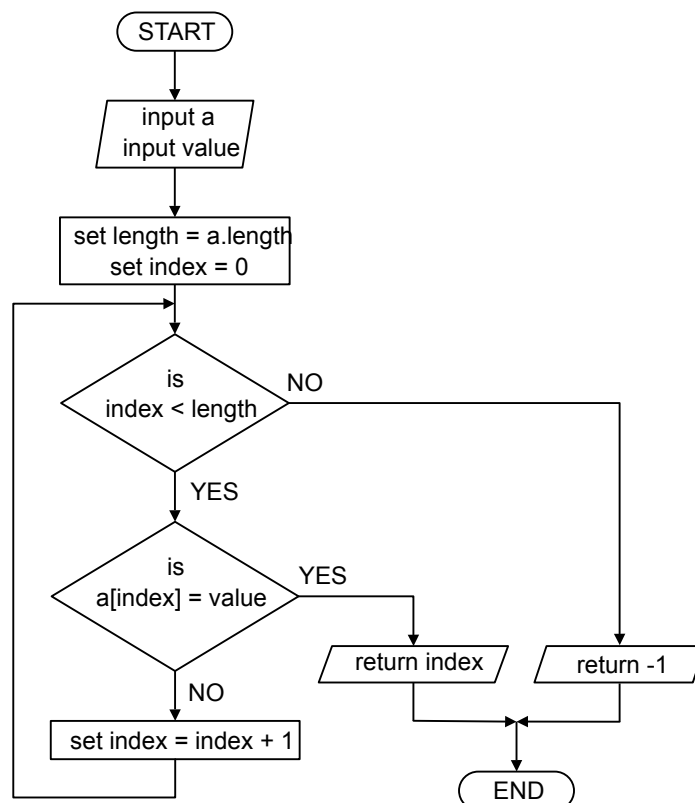


Worksheet: Linear Search for a Value

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

- **Inputs:** the array (call it **a**), and the value to search for (call it **value**).
- **Output:** the **index** in the array where the value is found; or a value of **-1** if the value is not found in the array.

Important: in pseudocode (as well as programming languages), if the flow of the program encounters a **RETURN** statement, the function will exit from that point and not continue to run any code after that line.

Subprocess: linearSearch

```

FUNCTION linearSearch( a, value )
BEGIN FUNCTION
    SET length TO LENGTH(a)
    SET index TO 0
    WHILE (index < length) DO
        IF (a[index] = value) THEN
            RETURN index
        END IF
        SET index TO index + 1
    END WHILE
    RETURN -1
END FUNCTION
  
```