

# TRAVERSING AN ARRAY

A is a linear array with base address LB and last index UB. This algorithm traverses A applying an operation PROCESS to each element of A.

Steps:

1. [Initialize Counter] Set  $K = LB$ .
2. Repeat steps 3 and 4 while  $K \leq UB$
3. [Visit element] Apply PROCESS to  $A[K]$ .
4. [Increment Counter] Set  $K = K + 1$   
[End of Step 2 loop]
5. Exit.

# Traversal

## ALGORITHM

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## SNIPPET

```
void traverse(int b[], int count){  
    // example print the elements of array A  
  
    index=0;  
    do{  
  
        printf("A[%d]= %d\n", index, A[index]);  
        index++;  
    }while index<count;  
  
}
```

# SEARCH AN ITEM IN AN ARRAY

## Algorithm

Steps:

1. Assume the target has not been found
2. Start with the initial array element
3. Repeat while the target is not found and there are more array elements
4. If the current element matches the target  
    Set a Flag to indicate that the target has been found  
    else  
        Advance to the next array element
5. If the target was found  
    return the target index as the search result  
    else  
        return -1 as the search result.