

## Linear Search

- They are 2 search method in an array

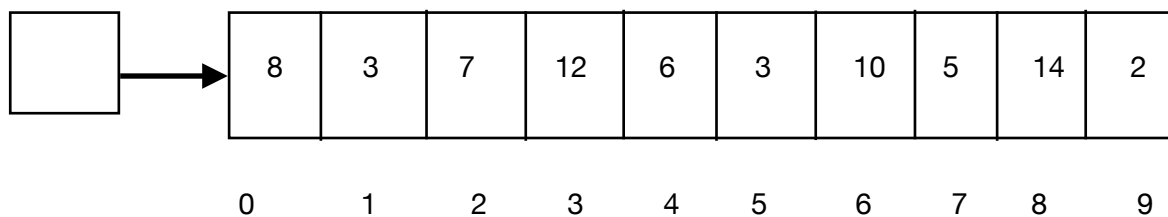
- I. Linear search
- II. Binary search

- Linear search :

Size = 10

Length = 10

A



Key = 5 (successful search)

Key = 12 (unsuccessful search)

- All the elements must be unique here
- The value you are searching is called key, In linear search we search the key element one by one linearly
- We search the element by comparing it with the key value

- The result of the search is the location of the element where its present (index number) , it is very useful in accessing the element in the list
- If the element is not found throughout the list that means it is not present in the list therefore search is unsuccessful

Syntax :

```
for( i = 0; i < length ; i++ )  
{  
    if( key == A[ i ] )  
        return i;           //if search is successful it ends here  
}  
  
return -1;                  // if search unsuccessful returns -1
```