

Practice 9

1. Consider the following list : 63, 45, 32, 98, 46, 57, 28, 100
Using the sequential search, how many comparison are required to find whether the following items are in the list?
 - a) 90
 - b) 57
 - c) 63
 - d) 120
2. Consider the following list : 2, 10, 17, 45, 49, 55, 68, 85, 92, 98,100
Using the binary search, how many comparison are required to find whether the following numbers are in the list?
 - a) 15
 - b) 49
 - c) 98
 - d) 99
3. Write a program and try out Linear and Binary Search functions on an array of 10 integers.
4. Write a program and use the find_if function to detect a negative integer and a second find_if function to detect a number larger than 10.
5. Using the bubbleSort function code, write a program to sort an array of integers:


```
int array1[] = {23, 2, 56, 89, 2, 42, 9, 11, 100, 35, 2, 17};
```


How do you sort it in descending order?
6. Repeat question 5 by using the insertionSort to sort the numbers.

7. Use the sort template on the previous exercise to sort the an array { -9, 4, 3, -3, 0, -2, 7, 4} in

i) ascending order

- without comp function
- with a comp relational function

ii) descending order, using your own compare function