

# WEEK - 6

- Algorithms-Linear and Binary
  - > Week-08-Sorting Algorithms-Bubble and Selection
  - > Assessment-08-Sorting Algorithms-Bubble and Selection
  - > Week-09-Two-Dimensional and Multi-dimensional Arrays
  - > Assessment-09-Two-Dimensional and Multi-dimensiona...
  - > Week-10-Character Arrays and Strings
  - > Assessment-10-Character Arrays and Strings
  - > Week-11-String Handling Functions
  - > Assessment-11-String Handling Functions
  - > Week-12-User-Defined Functions
  - > Assessment-12-User-Defined Functions
  - > Week-12-Recursive Functions
  - > Assessment-12-Recursive Functions
  - > Week-13-Passing Arrays and Strings to Functions
  - > Assessment-13-Passing

Week-06-Decision Making and Looping - for

Coding

Done

Assessment-06-Decision Making and Looping - for

Coding

Done

Linear Search

Done

Binary Search

Done

Insertion Sort

Done

Selection Sort

Done

Bubble Sort

Done

Quick Sort

Done

Merge Sort

Done

```

1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d", &n);
5     for(int i = 1; i <= 10; i++){
6         printf("%d x %d = %d\n", n, i, n * i);
7     }
8 }

```

	Input	Expected	Got	
✓	2	2 x 1 = 2 2 x 2 = 4 2 x 3 = 6 2 x 4 = 8 2 x 5 = 10 2 x 6 = 12 2 x 7 = 14 2 x 8 = 16 2 x 9 = 18 2 x 10 = 20	2 x 1 = 2 2 x 2 = 4 2 x 3 = 6 2 x 4 = 8 2 x 5 = 10 2 x 6 = 12 2 x 7 = 14 2 x 8 = 16 2 x 9 = 18 2 x 10 = 20	✓

Passed all tests! ✓

```

1  #include<stdio.h>
2  int main(){
3      long long int n, t, i, nut = 0;
4      scanf("%lld %lld", &n, &t);
5      for(i = 1; i <= n; i++){
6          nut += i;
7          if(nut == t){
8              nut -= 1;
9          }
10     }
11     printf("%lld", nut % 1000000007);
12 }

```

	Input	Expected	Got	
✓	2 2	3	3	✓
✓	2 1	2	2	✓
✓	3 3	5	5	✓

Passed all tests! ✓

```

1  #include<stdio.h>
2  int main(){
3      long n;
4      int p;
5      scanf("%ld %d", &n, &p);
6      long factors[100000];
7      int count = 0;
8      for(long i = 1; i * i <= n; i++){
9          if(n % i == 0){
10             factors[count++] = i;
11             if(i != n/i){
12                 factors[count++] = n/i;
13             }
14         }
15     }
16     for(int i = 0; i < count - 1; i++){
17         for(int j = i + 1; j < count; j++){
18             if(factors[i] > factors[j]){
19                 long temp = factors[i];
20                 factors[i] = factors[j];
21                 factors[j] = temp;
22             }
23         }
24     }
25     if(p > count){
26         printf("0");
27     }
28     else{
29         printf("%ld", factors[p - 1]);
30     }
31 }

```

	Input	Expected	Got	
✓	10 3	5	5	✓
✓	10 5	0	0	✓
✓	1 1	1	1	✓

Passed all tests! ✓