

Practice Problem (Sorting)

1. Find the Max element from an array.

Input:

3

10, 20, 4

Output: 20

2. Given an array, find the nth smallest element from an array.

Input:

8

10, 3, 6, 9, 2, 4, 15, 23

N = 4

Output: 6

3. Given an array of integers, find the median.

Input:

11

1, 3, 2, 0, 10, 7, 4, 8, 9, 6, 5

Output: 5

4. Given an array, find pairs with smallest difference.

Input:

6

1, 5, 3, 19, 18, 25

Output: 1

5. Find a sorted partition of length k from an unsorted array of n elements using insertion sort.

Given array: 6, 7, 5, 3, 9, 1

k = 3

Output: 5, 6, 7

6. Find the number of occurrences of a particular element(k) in an array.

Given array: 12, 54, 23, 12, 8, 1, 1, 1, 43, 12

k = 12

Output: 3

7. Find the number of elements in the longest subset having successive numbers from an unsorted array of numbers.

Example:

a = [4, 1, 2, 7, 6, 5]

Sorted a = [1, 2, 4, 5, 6, 7]

Output = 4

Explanation: [4, 5, 6, 7] is the longest subset having successive numbers

8. Find the sum of n largest numbers from an unsorted array using bubble sort.

Example: [4, 1, 2, 7, 6, 5]

n = 2

Answer: 7 + 6 = 13