1. Write a java program to find the following Using Array:

1. To find the minimum value of an array
2. To Find the Maximum value of an Array.
3. To Sort Two Arrays and Merged in the Sorted Order.
4. To find the Length of an Array.
5. To Find the Reverse of an Array.

2. Develop an application in java that randomly generates a number from a range of [1=100000] and checks whether it is Armstrong or not.

1. Write a Java program to replace each element of the array with product of every other element in a given array of integers.

**Example**Input:  
nums1 = { 1, 2, 3, 4, 5, 6, 7}  
nums2 = {0, 1, 2, 3, 4, 5, 6, 7}  
Output:  
Array with product of every other element:  
[5040, 2520, 1680, 1260, 1008, 840, 720]  
Array with product of every other element:  
[5040, 0, 0, 0, 0, 0, 0, 0]

1. Consider an integer array, the number of elements in which is determined by the user. The elements are also taken as input from the user. Write a program to find those pair of elements that has the maximum and minimum difference among all element pairs.

(maximum difference = highest-lowest

Minimum difference = second lowest – lowest )

1. If the input array is [10, 12, 20, 30, 25, 40, 32, 31, 35, 50, 60], your program should be able to find that the sub array lies between the indexes 3 and 8.
2. Write a java program to implement Tower of Honai.
3. Write a java program to implement N-Queens problem.

8. Write a code to extract Surname from the complete name.

9. Write a program to create a class called String Demo and use functions like length,CharAt,Concat,equals,startswith(),Endswith(),substring(),lastindex(),index(),reverse on them.

10. Develop a program to create a class called Box and calculate its volume by calling its method.

11. Take an array of 10 elements. Split it into middle and store the elements in two different arrays. E.g.-  
INITIAL array :

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 58 | 24 | 13 | 15 | 63 | 9 | 8 | 81 | 1 | 78 |

After spliting :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 58 | 24 | 13 | 15 | 63 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 9 | 8 | 81 | 1 | 78 |

12. Take 20 integer inputs from user and print the following:

(i)number of positive numbers  
(ii)number of negative numbers  
(iii)number of odd numbers  
(iv)number of even numbers  
(v)number of 0s.