

14/7/23

Class Test Java programming

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1. Java Program for binary search.
2. Java Program using arithmetic operations.

Answers

```
1. import java.util.*;
Public class Binary
{
    Public static void main (String [] args)
    {
        Scanner input = new Scanner (System.in);
        int n = input.nextInt();
        int [] arr = new int [n];
        for (int i = 0; i < n; i++)
        {
            arr[i] = input.nextInt();
        }
        Arrays.sort (arr);
        int key = input.nextInt();
        int f = 0, l = arr.length - 1;
        int mid = (f + l) / 2;
        while (f < l) {
            if (arr[mid] == key) {
                System.out.println("The value found at " + mid);
                break;
            }
            else if (arr[mid] < key) {
                f = mid + 1;
            }
            else {
                l = mid - 1;
            }
            mid = (f + l) / 2;
        }
        if (f > l) {
            System.out.println("The value not found");
        }
    }
}
```


O/p:-

5
8
9
5
6
1
6

The value found at 2.

```
2. import java.util.*;
Public class arithmetic{
    Public static void main (String[] args) {
        Scanner input = new Scanner (System.in);
        int a = input.nextInt();
        int b = input.nextInt();
        System.out.println ("The addition is "+ (a+b));
        System.out.println ("the subtraction is "+ (a-b));
        System.out.println ("The multiplication is "+ (a*b));
        System.out.println ("The quotient is "+ (a/b));
```

O/p:-

1050

The addition is 15.

The subtraction is .

The subtraction is 5

The multiplication is 50

The Division is 2.