Day 10 HOMEWORK

1.

```
import java.util.*;
public class Main {
    public static void main(String args[]){
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        int[][] arr = new int[n][n];
        for(int i=0;i<n;i++){
            for(int j=0;j<n;j++){
                arr[i][j]=sc.nextInt();
            }
        }
        int maxi = 0;
        for (int i = 0; i < arr.length - 2; i++) {
            for (int j = 0; j < arr[i].length - 2; j++) {
           int sum = arr[i][j] + arr[i][j+1] + arr[i][j+2] + arr[i+1][j+1]+ arr[i+2][j] + arr[i+2][j+1] +
arr[i+2][j+2];
                maxi = Math.max(maxi, sum);
            }
        }
        System.out.println(maxi);
    }
}
```

1.

```
import java.util.*;
public class Main
{
        public static void main(String[] args) {
            Scanner sc = new Scanner(System.in);
        String st = sc.next();
        Map<Character, Character> map = new HashMap<>();
        map.put('0', '0');
        map.put('1', '1');
        map.put('6', '9');
        map.put('8', '8');
        map.put('9', '6');
        int start = 0, end = st.length()-1;int f=0;
        while(start<end){
            if(st.charAt(start)!=map.getOrDefault(st.charAt(end),' ')){
```

```
            System.out.println("Not a Strobogrammatic");f=1;break;
        }
        start++;
        end--;
      }
   if(f==0){
System.out.println("Yes Strobogrammatic");
   }
        }
}
```

3.

```
import java.util.Arrays;
import java.util.Scanner;

public class Main {
    public static void main(String args[]) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        boolean[] isPrime = new boolean[n + 1];
        Arrays.fill(isPrime, true);

        for (int i = 2; i * i <= n; i++) {
            if (isPrime[i]) {
                for (int j = i * i; j <= n; j += i) {
                    isPrime[j] = false;
                }
            }
        }

        System.out.println("Prime numbers up to " + n + ":");
        for (int i = 2; i <= n; i++) {
            if (isPrime[i]) {
                System.out.print(i + " ");
            }
        }
    }
}
```

4.

```
import java.util.*;
public class Main
{
        public static void main(String[] args) {
                Scanner sc = new Scanner(System.in);
   ArrayList<Integer> ar = new ArrayList<>();
      int size = sc.nextInt();
      int[] arr = new int[size];

      for (int i = 0; i < size; i++) {
         arr[i] = sc.nextInt();
      }
      int max = arr[size-1];
      ar.add(max);
      for(int i = size-2;i>=0;i--){
         if(arr[i]>max){
            max= arr[i];
            ar.add(max);
         }
      }
      Collections.reverse(ar);
      System.out.println(ar);
         }
}
```

5.

```
import java.util.*;
public class Main
{
        public static void main(String[] args) {
                Scanner sc = new Scanner(System.in);
                int n=sc.nextInt();
                String bin = Integer.toBinaryString(n);
                while(bin.length()<8){
                   bin="0"+bin;
                }
                String sub1= bin.substring(0,4);
                String sub2= bin.substring(4);
                String ans=sub2+sub1;
                System.out.println(Integer.parseInt(ans,2));
        }
```

```
}
```