1. write a program to count all the prime and composite numbers entered by the user.

Sample input:

Enter the numbers
4, 54, 29, 71, 7, 59, 98, 33

output:

Composite number: 3
Prime number: 5

```
int arr [] = {4, 54, 29, 71, 7, 59, 98, 33};
int com = 0, prie = 0;
for (int i=0; i<arr. length; i++)
{
    int c=0;
    for (int o j=1; j<arr[i]; j++)
    {
        if (arr [i] % j == 0)
            c++;
    }
    if (c > 1)
        com ++;
    else
        Pri ++;
}
System.out.print ("composite Number: "+com);
System.out.println ("\nprime number: "+Pri);
```

2. Find the mth maximum number and Nth minimum number in an array.

```
int arr[] = {14, 16, 87, 36, 25, 87, 34};
int len = arr.length;
    for (int i=0; i<len; i++){
        for (int j=i+1; j<len; j++){
            if (arr[i] > arr[j]){
                int temp = arr[i];
                arr[i] = arr[j];
                arr[j] = temp;
            }
        }
    }

int m=1, n=3;
int max = arr[len-m];
int min = arr[n-1];
System.out.print (m+ "maximum number = " + max);
System.out.print ("\n" +n+ "minimum number = " + min);

int Diff = max - min;
int Diff = max - min;
system.out.print ("\n Sum = " +Sum);
System.out.print ("\n Difference = " +Diff);
```

3. write a program to print the total amount available in the ATM

```
Int n1 = 500, d1 = 4, n2 = 100, d2 = 20, n3 = 200,
    d3 = 32, n4 = 2000, d4 = 1;
int Total = (n1 * d1) + (n2 * d2) + (n3 * d3) +
                                    (n4 * d4);
System.out.print ("Total Available Balance
                        in ATM : " + TOTAL)
```

output:

12400.

4. write a program using choice to check.

```
String S1 = "MADAM";
String S2 = " ";
int len = S1.length();
for (int i = len - 1; i >= 0; i++ i--)
{
    S2 = S2 + S1.charAt(i);
}
if (S1.equals(S2))
    system.out.print ("Palindrome");
else
    System.out.print ("Not Palindrome");
```

5. write a program to convert Decimal number equivalent to Binary number and octal!

```
int dec=15;
string bin = Integer.to Binary string
                                    (dec):
string oct = Integer . tooctal string (dec):
system . out . println (" Binary number="(+bin)
System . out . print ("octal number = "+oct):
```

6. In an organization th decide to give bonus all the employee on new year. A 5% bonus on salary is given to the grade A works and 10% bonus on salary to the grade B workers.

```
Scanner input = new Scanner (System.in);
int a,b;
double bonus = 0;
System . out . print (" Enter the grade of the
                        employee :");
char a = input . next (). charAt (0):
System . out . print (" Enter the Salary of
                        employee:");
int b = input . next Int ():
if (a == 'A')
{
    bonus = b1 * (0.05):
    if (b1 < 10000)
    {
        bonus = bonus + b1 * (0.02):
    }
```

```java
        }
        if (sum==j)
        {
        System.out.print (j+ " ");
        temp = temp+1;
        }
        }
```

8. write a program to print the enter the marks of a student in four subjects.

```java
int a1=90;
int a2 = 91;
int a3= 92;
int a4 = 93;
int total = (a1+a2+a3+a4);
float agg = total/4.F;
System.out.println (total);
System.out.println (agg);
if (agg >= 75)
        System.out.println ("Distinction");
else if (agg >= 60 && agg < 75)
        System.out.println ("First division");
else if (agg >= 50 && agg < 60)
        System.out.println ("Second division");
else if (agg >= 40 && agg < 50)
        System.out.println ("Third division");
else system.out.println (" Fail");
```

9. writ
Pollo

Sco
in
Rl

el

el

10.

9. write a program to calculate tax given the following conditions:

```
Scanner input = new Scanner (System.in);
int income = input.readInt ();
float tax;
if (income < 150000)
    system.out.println ( "No tax");
else if (income >= 150000 && income <= 300000)
    system.out.println ("Tax = "income/10);
else if (income >= 300000 && income <= 500000)
    System.out.println ("Tax = "income/20);
else
    System.out.println ("Tax = "income/
                                    30);
```

10. calulate the factorial number using function

```
Scanner input = new Scanner (System.in);
int n = input.next int ();
int fact = 1;
for (int i = 1; i <= n; i++)
{
    fact = fact * i;
}
System.out.println ("The factorial
                    of "+n" is : " + fact);
```