JAVA PROGRAMMING

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1. Write a program to count all the prime and composite numbers entered by the users.

```
import java.util.Scanner;
Public class PrimeComposite number
{
 Public static Void main (String[] args)
 {
  int arr[] = {4,54,29,71,7,59,98,23};
  int com=0, pri=0;
  for (int i=0; i< arr.length; i++)
 {
   int c=0;
   for (int 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.print ("\n prime number:" +pri);

  }
 }
```

2. Find the Mth maximum number and Nth minimum number in an array and then find the sum of it and difference of it.

```
import java.util.Scanner;
Public class minmax
{
 Public Static void main(String[] args)
 int arr[] = {14, 16, 87, 36, 25, 89, 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 Sum = max+min;
int Diff = max-min;
System.out.print("In Sum=" + Sum);
System.out.print("In Difference=" + Diff);
}
}
```

3. Write a program to print the total amount available in the ATM machine with the conditions applied.

```
import java.util.scanner;
Public class ATM machine
{
 Public Static Void main (String[]args)
 {
   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);
```

4. Write a program using choice to check whether the given number is palindrome or not.

```
import.java.util.scanner;
Public class Palindrome
{
Public Static void main(string[]args)
 {
   string S1 = "MADAN";
   string S2 = "";
   int len = S1.length();
   for (int i = len - 1; i >= 0; 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 numbers?

```
import java.util.scanner;
Public class Convert
{
Public Static void main (string [] args)
{
 int dec = 15;
 string bin = Integer.toBinaryString(dec);
 String Oct = Integer.toOctalString(dec);
 System.out.println("Binary number = "+bin);
 System.out.print("Octal number = "+Oct);
}
}
```

6. Write a Program to entry the salary and grade of the employee.

```
import java.util.Scanner;
Public class Company
{
Public Static Void main (string[]args)
{
 double bonus = 0;
 System.Out.print("Enter the grade of the employee: ");
 char a1 = input.next().charAt(0);
 System.out.print("Enter the salary of employee :");
 int b1 = input.nextInt();
 if(a1 == 'A')
 {
  bonus = b1*(0.05);
  if (b1 < 10000)
  {
    bonus = bonus + b1*(0.02);
  }
  System.out.println("salary = "+b1);
```

```
System.out.println("bonus = "+bonus);
System.out.println("total to be paid = "+(b1+bonus));
}
else if(a1=='B')
{
bonus = b1*(0.1);
if(b1<10000)
{
bonus = bonus + b1*(0.02);
}
System.out.println("Salary="+b1);
System.out.println("bonus = "+bonus);
System.out.println("total to be paid = "+(b1+bonus));
}
else
{
System.out.print("Enter valid grade");
}
}
}
```

7. Write a program to print the first n perfect numbers.

```
import java.util.Scanner;
Public class Perfect number
{
Public static Void main(string[] args)
{
Scanner input = new Scanner(system.in)
int n = input.nextInt();
int sum=0. temp=0;
for(int j=2; j<=1000; j++)
{
if(n>temp)
sum = 1;
for(int i=2; i<j; i++)
```

```
{
 if(j%i==0)
  Sum=Sum+i;
}
 if(Sum==j)
 {
  System.out.print(j+" ");
  temp=temp+1;
 }
}
}
}
```

8. write a program to print the first n pr

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

```
import java.util.Scanner;
Public class student
{
 Public static void main(String[] args)
 {
 int a1=90;
 int a2=91;
 int a3=92;
 int a4=93;
 int total=(a1+a2+a3+a4);
 float agg=total/4f;
 System.out.println(total);
 System.out.println(agg);
 if(agg>75)
  System.out.println("DISTINCTION");
 else if(age >=60 && agg<75)
 System.out.println("FirstDivision");
else if(agg>=40 && agg<50)
 System.out.println("Third Division");
```

```
else
  System.out.println("Fail");
```

10. Write a program to calculate tax given number.

```
import java.util.Scanner;
Public class Calculate tax
{
 Public static Void main(String[] args)
 {
  Scanner input = new Scanner(system.in);
  int income = input.nextInt();
  float tax;
  if (income <= 150000)
   system.out.println("No tax");
  else if (income >= 150001 && income <= 500000)
    system.out.println("Tax =" + income/10);
  else if (income >= 300001 && Income <= 500000)
   system.out.println("Tax =" + income/20);
  else
    System.out.println("Tax =" + income/50);
 }
}
```