**QUESTION 1:**

import java.io.\*;

public class Test {

public static void main(String[] args) throws IOException

{

File file = new File("C:\\Users\\hp\\Desktop\\TextReader.txt");

FileInputStream fileInputStream = new FileInputStream(file);

InputStreamReader inputStreamReader = new InputStreamReader(fileInputStream);

BufferedReader bufferedReader = new BufferedReader(inputStreamReader);

String line;

int wordCount = 0;

int characterCount = 0;

int paraCount = 0;

int whiteSpaceCount = 0;

int sentenceCount = 0;

while ((line = bufferedReader.readLine()) != null) {

if (line.equals("")) {

paraCount += 1;

}

else {

characterCount += line.length();

String words[] = line.split("\\s+");

wordCount += words.length;

whiteSpaceCount += wordCount - 1;

String sentence[] = line.split("[!?.:]+");

sentenceCount += sentence.length;

}

}

if (sentenceCount >= 1) {

paraCount++;

}

System.out.println("Total word count = "+ wordCount);

System.out.println("Total number of sentences = "+ sentenceCount);

System.out.println("Total number of characters = "+ characterCount);

System.out.println("Number of paragraphs = "+ paraCount);

System.out.println("Total number of whitespaces = "+ whiteSpaceCount);

    }

}

**QUESTION 2:**

class Bank {

int total = 100;

void withdrawn(String name, int withdrawal)

{

if (total >= withdrawal) {+ withdrawal);

total = total - withdrawal;

System.out.println("Balance after withdrawal: "+ total);

try {

Thread.sleep(1000);

}

catch (InterruptedException e) {

e.printStackTrace();

}

}

else {

System.out.println(name + " you can not withdraw "+ withdrawal);

System.out.println("your balance is: " + total);

try {

Thread.sleep(1000);

}

catch (InterruptedException e) {

e.printStackTrace(); }

} }

void deposit(String name, int deposit)

{

System.out.println(name + " deposited " + deposit);

total = total + deposit;

System.out.println("Balance after deposit: "+ total);

try {

Thread.sleep(1000); }

catch (InterruptedException e) {

e.printStackTrace();

}}}

class GFG {

public static void main(String[] args)

{

Bank obj = new Bank();

obj.withdrawn("Arnab", 20);

obj.withdrawn("Monodwip", 40);

obj.deposit("Mukta", 35);

obj.withdrawn("Rinkel", 80);

obj.withdrawn("Shubham", 40);

}

}

**QUESTION 3:**

class Solution {

public List<String> fizzBuzz(int n) {

List<String> result = new ArrayList<String>();

for(int i=1;i<=n;i++){

if(i%3==0 && i%5==0){

result.add("FizzBuzz");

continue;

}

if(i%3==0){

result.add("Fizz");

continue; }

if(i%5==0){

result.add("Buzz");

continue;

} result.add(i+"");

} return result;

}}

**QUESTION 4:**

import java.io.\*;

import java.util.\*;

class GFG {

    // java program to check if two strings are rotation of

    // each other or not

    static boolean checkString(String s1, String s2,

                               int indexFound, int Size)

    {

        for (int i = 0; i < Size; i++) {

            // check whether the character is equal or not

            if (s1.charAt(i)

                != s2.charAt((indexFound + i) % Size))

                return false;

            // %Size keeps (indexFound+i) in bounds,

            // since it ensures it's value is always less

            // than Size

        }

        return true;

    }

    // Driver code

    public static void main(String args[])

    {

        String s1 = "abcd";

        String s2 = "cdab";

        if (s1.length() != s2.length()) {

            System.out.println(

                "s2 is not a rotation on s1");

        }

        else {

            ArrayList<Integer> indexes = new ArrayList<

                Integer>(); // store occurrences of the

                            // first character of s1

            int Size = s1.length();

            char firstChar = s1.charAt(0);

            for (int i = 0; i < Size; i++) {

                if (s2.charAt(i) == firstChar) {

                    indexes.add(i);

                }

            }

            boolean isRotation = false;

            // check if the strings are rotation of each

            // other for every occurrence of firstChar in s2

            for (int idx : indexes) {

                isRotation = checkString(s1, s2, idx, Size);

                if (isRotation)

                    break;

            }

            if (isRotation)

                System.out.println(

                    "Strings are rotations of each other");

            else

                System.out.println(

                    "Strings are not rotations of each other");

        }

    }

}

**QUESTION 6:**

public class Voting {

public static void main(String[] args)

{

int age, diff;

Scanner scan = new Scanner(System.in);

System.out.println("Please enter your age: ");

age = scan.nextInt();

if(age>=18)

{

System.out.println("You are eligible for voting."); }

else{

diff = (18 - age);

System.out.println("Sorry,You can vote after: "+ diff + " years");

}

}}

}}

**QUESTION 7:**

import java.util.Scanner;

public class PrintLcmHcf {

    public static void main(String[] args) {

        int a, b, t, aTemp, bTemp, lcm, gcd;

        Scanner scanner;

        scanner = new Scanner(System.in);

        // Take two numbers from user

        System.out.println("Enter Two Number");

        a = scanner.nextInt();

        b = scanner.nextInt();

        aTemp = a;

        bTemp = b;

        while (bTemp != 0) {

            t = bTemp;

            bTemp = aTemp % bTemp;

            aTemp = t;

        }

        gcd = aTemp;

        /\*

         \* GCD(a, b) \* LCM(a, b) = a\*b

         \*/

        lcm = (a \* b) / gcd;

        System.out.println("LCM = " + lcm);

        System.out.println("GCD = " + gcd);

    }

}

**QUESTION 8:**

public class Main

 {

   public static void main (String args[])

    {   float p, r,  t,  si;

              p = 13000;  r = 12; t = 2;

               si  = (p\*r\*t)/100;

              System.out.println("Simple Interest is: " +si);

    }}

**QUESTION 9:**

#iimport java.util.\*;

class object

{public static void main(String[]args)

{Scanner m=new Scanner(System.in);

int n=m.nextInt();

int k,a=0,b=1;

while(a<=n)

{k=a;

a=b;

b=k+b;

System.out.println(a);

}

}

}

**QUESTION 10:**

import java.util.Scanner;

import java.io.\*;

public class FabonacciSum {

public static void main(String[] args){

int my\_input, i, sum;

System.out.println("Required packages have been imported");

Scanner my\_scanner = new Scanner(System.in);

System.out.println("A reader object has been defined ");

System.out.println("Enter the value of N: ");

my\_input = my\_scanner.nextInt();

int fabonacci[] = new int[2 \* my\_input + 1];

fabonacci[0] = 0;

fabonacci[1] = 1;

sum = 0;

for (i = 2; i <= 2 \* my\_input; i++) {

fabonacci[i] = fabonacci[i - 1] + fabonacci[i - 2];

if (i % 2 == 0)

sum += fabonacci[i];

}

System.out.printf("Even sum of fibonacci series till number %d is %d" , my\_input, sum);

}

}

**QUESTION 11:**

#iimport java.util.\*;

class object

{public static void main(String[]args)

{Scanner m=new Scanner(System.in);

int x=m.nextInt();

int y=m.nextInt();

int z=m,nextInt();

for (y=x;y<=x;y=y+z)

{System.out.println(y);

}

}

}

**QUESTION 12:**

import java.io.\*;

class Composite

{

    static boolean isComposite(int n)

    {

        // Corner cases

        if (n <= 1)

        System.out.println("False");

        if (n <= 3)

        System.out.println("False");

        // This is checked so that we can skip

        // middle five numbers in below loop

        if (n % 2 == 0 || n % 3 == 0) return true;

        for (int i = 5; i \* i <= n; i = i + 6)

            if (n % i == 0 || n % (i + 2) == 0)

            return true;

        return false;

    }

    // Driver Program to test above function

    public static void main(String args[])

    {

        System.out.println(isComposite(11) ?

                       "true" : "false");

        System.out.println(isComposite(15) ?

                       "true" : "false");

    }

}

**QUESTION 13:**

class FactorialExample{

 public static void main(String args[]){

  int i,fact=1;

  int number=5;//It is the number to calculate factorial

  for(i=1;i<=number;i++){

      fact=fact\*i;

  }

  System.out.println("Factorial of "+number+" is: "+fact);

 }

}

**QUESTION 14:**

class Main {

public static void main(String[] args) {

// year to be checked

int year = 1900;

boolean leap = false;

// if the year is divided by 4

if (year % 4 == 0) {

// if the year is century

if (year % 100 == 0) {

// if year is divided by 400

// then it is a leap year

if (year % 400 == 0)

leap = true;

else

leap = false;

}

// if the year is not century

else

leap = true;

}

else

leap = false;

if (leap)

System.out.println(year + " is a leap year.");

else

System.out.println(year + " is not a leap year.");

}

**QUESTION 15:**

public class Main

{

public static void main(String[] args) {

int num = 10;

System.out.println( "Factors of " + num + " are " );

// finding and printing factors b/w 1 to num

for(int i = 1; i <= num; i++)

{

if(num % i == 0)

System.out.println(i + " ");

}

}

}

**QUESTION 16:**

import java.util.\*;

class object{

public static void main(String[]args)

{System.out.println("enter a perfect square");

Scanner m=new Scanner(System.in);

int n=m.nextInt();

int k;

for(int i=2;i<n;i++)

{k=n%i;

if (k==0){

k=i\*i;

if (k==n)

{System.out.print("the number is perfect square”);}

}}

}}

**QUESTION 17:**

#include <stdio.h>

int main(){

int num, square, cube;

// Taking input

printf("Enter an integer: ");

scanf("%d", &num);

// Finding Square

square = num \* num;

// Finding Cube

cube = num \* num \* num;

// Displaying result

printf("Square of %d is: %d \n", num, square);

printf("Cube of %d is: %d", num, cube);

return 0;

}

**QUESTION 18:**

import java.util.\*;

class oddNos {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter a no");

int n = sc.nextInt();

int i;

System.out.println("First "+n+" ODD nos");

for(i=1;i<=2\*n;i++){

{if(i%2 == 0)

continue;}

else

System.out.println(i);

}

}}

**QUESTION 19:**

import java.util.Scanner;

import java.lang.Math;

public class ArmstsrongNumberExample

{  static boolean isArmstrong(int n)

{

int temp, digits=0, last=0, sum=0;

temp=n;

while(temp>0)

{

temp = temp/10;

digits++;

}

temp = n;

while(temp>0)

{   last = temp % 10;

sum +=  (Math.pow(last, digits));

temp = temp/10;

}

if(n==sum)

return true;

else return false;

}

public static void main(String args[])

{

int num;

Scanner sc= new Scanner(System.in);

System.out.print("Enter the limit: ");

num=sc.nextInt();

System.out.println("Armstrong Number up to "+ num + " are: ");

for(int i=0; i<=num; i++)

if(isArmstrong(i))

System.out.print(i+ ", ");

}

}

**QUESTION 20:**

|  |
| --- |
| public class GFG  {      // Java program to find the most frequent element    // in an array.    public static int mostFrequent(int[] arr, int n)    {      int maxcount = 0;      int element\_having\_max\_freq = 0;      for (int i = 0; i < n; i++) {        int count = 0;        for (int j = 0; j < n; j++) {          if (arr[i] == arr[j]) {            count++;          }        }          if (count > maxcount) {          maxcount = count;          element\_having\_max\_freq = arr[i];        }      }        return element\_having\_max\_freq;    }      // Driver program    public static void main(String[] args)    {      int[] arr = { 40, 50, 30, 40, 50, 30, 30 };      int n = arr.length;      System.out.print(mostFrequent(arr, n));    }  } |

**QUESTION 21:**

import java.util.\*;

class object{

public static void main(String[]args)

{Scanner m=new Scanner(System.in);

System.out.print("no of digits=");

int l=m.nextInt();

System.out.print("number=");

int n=m.nextInt();

int k=0,x,p;

for (int i=1;i<l;i++){

p=n%10;

x=n/10;

k=k+p;

}

System.out.print("sum="+k);

}}

**QUESTION 22:**

import java.util.\*;

class object{

public static void main(String[]args)

{System.out.println("enter a perfect square");

Scanner m=new Scanner(System.in);

int n=m.nextInt();

int k;

for(int i=2;i<n;i++)

{k=n%i;

if (k==0){

k=i\*i;

if (k==n)

{System.out.print("the number is perfect square”);}

}}

}}