1. Create a class with a method which can calculate the sum of first n natural numbers which are divisible by 3 or 5.

Sol:

**public** **class** SumNaturalNumbers {

**public** **int** calculateSum(**int** n)

{

**int** sum=0;

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

{

**if**(i%3==0 || i%5==0)

{

sum=sum+i;

}

}

**return** sum;

}

**public** **static** **void** main(String[] args) {

**int** n=20;

SumNaturalNumbers ob=**new** SumNaturalNumbers();

System.***out***.println(ob.calculateSum(n));

}

}

2.Create a class with a method to find the difference between the sum of the squares and the square of the sum of the first n natural numbers.

Sol:

**public** **class** Difference {

**int** sumsquares=0;

**int** sum=0;

**public** **int** difference(**int** n)

{

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

{

sumsquares=sumsquares+(i\*i);

sum=sum+i;

}

**return** sumsquares-sum;

}

**public** **static** **void** main(String[] args) {

**int** n=20;

Difference ob=**new** Difference();

System.***out***.println(ob.difference(n));

// **TODO** Auto-generated method stub

}

}

**3:** Create a method to check if a number is an increasing number

**import** java.util.\*;

**public** **class** IncreaseNumber {

**public** **static** **boolean** checkNumber(**int** n)

{

**int** currentDigit=n%10;

n=n/10;

**while**(n>0)

{

**if**(currentDigit<=n%10)

{

**return** **false**;

}

currentDigit=n%10;

n=n/10;

}

**return** **true**;

}

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Scanner in=**new** Scanner(System.***in***);

**int** n=in.nextInt();

**boolean** result=*checkNumber*(n);

System.***out***.println(result);

}

}

#### 4 Create a method to check if a number is a power of two or not

**public** **class** CheckPowerOfTwo {

**public** **boolean** checkNumber(**int** n)

{

**if** (n > 0)

{

**while** (n % 2 == 0)

{

n = n / 2;

}

**if** (n == 1)

{

**return** **true**;

}

**else**

{

**return** **false**;

}

}

**else**

{

**return** **false**;

}

}

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

**int** n = 8;

CheckPowerOfTwo ob = **new** CheckPowerOfTwo();

System.***out***.println(ob.checkNumber(n));

}

}

5. Take Employee Info like empid, empname, empsal, empAdd, empGender, empEmail and display

**import** java.util.Scanner;

**public** **class** Employee {

**public** **static** **void** main(String[] args) {

Scanner in = **new** Scanner(System.***in***);

System.***out***.println("Enter Employee Id");

**int** empid=in.nextInt();

in.nextLine();

System.***out***.println("Enter Employee name");

String name=in.nextLine();

System.***out***.println("Enter Employee salary");

**double** empsal=in.nextDouble();

in.nextLine();

System.***out***.println("Enter Employee Address");

String empAdd=in.nextLine();

System.***out***.println("Enter Employee Gender");

**char** empGender=in.next().charAt(0);

in.nextLine();

System.***out***.println("Enter Employee email");

String empEmail=in.nextLine();

System.***out***.println(empid);

System.***out***.println(name);

System.***out***.println(empsal);

System.***out***.println(empAdd);

System.***out***.println(empGender);

System.***out***.println(empEmail);

}

}

6. Write a Java program to print the sum (addition), multiply, subtract, divide and remainder of two numbers.

**import** java.util.\*;

**public** **class** TwoNumbers {

**public** **static** **void** main(String[] args)

{

Scanner in=**new** Scanner(System.***in***);

**int** a=in.nextInt();

**int** b=in.nextInt();

System.***out***.println(a+b);

System.***out***.println(a-b);

System.***out***.println(a\*b);

System.***out***.println(a/b);

}

}

7 Write a Java method to find the smallest number among three numbers.

**import** java.util.\*;

**public** **class** SmallestNumber {

**public** **static** **int** compare(**int** a,**int** b,**int** c)

{

**if**(a<b && a<c)

{

**return** a;

}

**else** **if**(b<c && b<a)

{

**return** b;

}

**else**

{

**return** c;

}

}

**public** **static** **void** main(String[] args) {

Scanner in=**new** Scanner(System.***in***);

**int** a=in.nextInt();

**int** b=in.nextInt();

**int** c=in.nextInt();

**int** smallest=*compare*(a,b,c);

System.***out***.println("The smallest number is:"+smallest);

}

}

8. Write a Java method to compute the average of three numbers.

**import** java.util.Scanner;

**public** **class** Average {

**public** **static** **void** main(String[] args) {

Scanner in=**new** Scanner(System.***in***);

**int** a=in.nextInt();

**int** b=in.nextInt();

**int** c=in.nextInt();

**int** avg=(a+b+c)/3;

System.***out***.println("The average value is :"+avg);

}

}