1)Write a program to demonstrate method overloading with 3 different parameters.

*class* Calculator{

*public int* add(*int* num1, *int* num2){

*return* num1 + num2;

}

*public int* add(*int* num1, *int* num2, *int* num3){

*return* num1 + num2 + num3;

}

*public int* add(*int* num1, *int* num2, *int* num3, *int* num4){

*return* num1 + num2 + num3;

}

}

*public class* MethodOverloading {

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

Calculator rc = *new* Calculator();

*int* result= rc.add(10,20,30);

System.***out***.println("sum = "+result);

}

}

2) Write a program to create an object of an class which contain a method and call that class method in main method.

*class* Rectangle {

*float* length, width;

Rectangle(*float* l, *float* w){

*//constructor to initialize variables bcoz to compute area and perimeter we required length and width*

length = l;

width =w;

}

*public float* areaRectangle() {

*return* length \* width;

}

*public float* periRectangle(){

*return* 2 \* (length+width);

}

}

*public class* CreObj{

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

Rectangle rc = *new* Rectangle(2,3);

*float* area = rc.areaRectangle();

System.***out***.println("area of rectangle:- "+area);

*float* perimeter = rc.periRectangle();

System.***out***.println("perimeter of rectangle:- "+perimeter);

}

}

3) write a java program to calculate the sum of all elements in an integer array

*class* Sum {

*// method 1*

*public int* add(*int* a[])

{

*int* result = 0;

*// enhanced loop for computing sum*

*for*(*int* n: a){

result = result + n;

}

*return* result;

}

*// method 2*

*public void* addition(*int* arr[]){

*int* temp = 0;

*for*(*int* nums:arr){

temp = temp +nums;

}

System.***out***.println("sum of element of an array by method 2:- "+temp);

}

}

*public class* SumArray {

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

Sum obj = *new* Sum(); *// instance of sum class*

*// method 1*

*int* res = obj.add(*new int*[]{2,3,4,5}); *//method invocation for calculating sum of array element once time used*

System.***out***.println("sum of array element by method 1:- "+res); *//printing sum value returned by add method*

*// method 2*

*int* arr[] = {2,3,4,5};

obj.addition(arr); *// method invoking which trying to give sum of array by demonstrating other ways(methods)*

}

}

4) Write a java program to find index of specific element in an integer array?

*public class* FindIndex {

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

*int* a[] = {1,2,3,4,5};

*for*(*int* i=0;i<a.length;i++){

System.***out***.println("index = "+i+" and element = "+a[i]);

}

}

}

5) Write a java program to print an entire array?

*import* java.util.\*;

*class* FillArray {

*public void* printArray(*int* a[]){

System.***out***.println("printing array element.....");

*for*(*int* num:a) {

System.***out***.println(" "+num);

}

}

}

*public class* PrintArray {

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

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

*int* arr[] = *new int*[5]; *// declaration of array by giving size*

*int* len = arr.length; *// finding array length;*

System.***out***.println("enter element for array and array size is 5...");

*for*(*int* i = 0;i<len;i++){ *// for loop for entering element in array from user*

arr[i] = sc.nextInt();

}

FillArray obj = *new* FillArray(); *//instance of class*

obj.printArray(arr); *// method invocation for printing array element*

}

}