1. Write a java code with the class named ‘acad’ and a method ‘main’. Hardcode the program with two integers and print the sum of those two.

**public** **class** acad {

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

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

**int** a=10;

**int** b=20;

**int** c=a+b;

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

}

}

1. Rewrite the above code, where, inputs are provided by the user at runtime and the output is printed

import java.util.Scanner;

public class acad {

private static Scanner *sc*;

public static void main(String[] args) {

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

System.out.println("enter the number");

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

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

**int** c=a+b;

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

}

}

1. Write a program with method name sum() that accepts two parameters from user and print the sum two numbers. Output format should be as:

**import** java.util.Scanner;

**public** **class** Main {

**private** **static** Scanner *sc*;

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

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

**int** x=*sc*.nextInt();

**int** y=*sc*.nextInt();

**int** z=*sum*(x,y);

System.***out***.println(“First number is:”+x);

System.***out***.println(“First number is:”+y);

System.***out***.println(“Sum is:”+z);

}

**static** **int** sum(**int** x,**int** y)

{

**int** z=x+y;

**return** z;

}

}

1. Write a program to accepts two numbers from stdin and find all the odd as well as even numbers present in between them.

**import** java.util.Scanner;

**public** **class** Main {

**private** **static** Scanner *sc*;

**static** **int** *a*[]=**new** **int**[50];

**static** **int** *b*[]=**new** **int**[50];

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

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

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

System.out.println("enter the starting and ending number");

**int** s=*sc*.nextInt();

**int** e=*sc*.nextInt();

**int** c=0;

**int** d=0;

**for**(**int** i=s;i<=e;i++){

**if**(i%2==0)

{

*a*[c]=i;

c++;

}

**else**

{*b*[d]=i;

d++;

}}

System.***out***.println("even numbers are");

**for**(**int** j=0;j<c;j++){

System.***out***.println(*a*[j]);

}

System.***out***.println("odd numbers are");

**for**(**int** k=0;k<d;k++){

System.***out***.println(*b*[k]);

}

}

}

5) Joe is scared to go to school. When her dad asked the reason, Joe said she is unable to complete the task given by her teacher. The task was to find the “first 10 multiples” of the number entered from stdin.

**import** java.util.Scanner;

**public** **class** Main {

**private** **static** Scanner *sc*;

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

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

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

System.out.println("enter the number");

**int** t=*sc*.nextInt();

**for**(**int** i=1;i<=10;i++){

**int** m=t\*i;

System.***out***.println(t+"\*"+i+"="+m);

}

}

}

6)Write a program consisting method sum() and demonstrate the concept of method overloading using this method.

**public** **class** Main {

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

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

Add a=**new** Add();

**int** ss=a.sum(10, 20);

**int** sa=a.sum(10, 20,30);

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

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

}}

**class** Add{

**public** **int** sum(**int** a,**int** b){

**int** c=a+b;

**return** c;

}

**public** **int** sum(**int** x,**int** y,**int** z){

**int** add=x+y+z;

**return** add;

}

}

7) Can you overload a method with the same return type? Explain your answer with proper logic.

Yes, we can overload a method with same return type because overloading a method requires either the different return type or different parameters.

Example:

**public** **class** Main {

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

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

Add a=**new** Add();

**int** ss=a.sum(10, 20);

**int** sa=a.sum(10, 20,30);

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

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

}}

**class** Add{

**public** **int** sum(**int** a,**int** b){

**int** c=a+b;

**return** c;

}

**public** **int** sum(**int** x,**int** y,**int** z){

**int** add=x+y+z;

**return** add;

}

}

8) Write a program in java using Arrays that sorts the element in descending order.

**import** java.util.Scanner;

**public** **class** Main {

**private** **static** Scanner *sc*;

**static** **int** *a*[]=**new** **int**[50];

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

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

System.***out***.println("enter the size of the array");

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

System.***out***.println("Enter the numbers to be sorted");

**for**(**int** i=0;i<n;i++){

*a*[i]=*sc*.nextInt();

}

**for**(**int** j=0;j<n;j++)

{

**for**(**int** k=j+1;k<=n-1;k++)

{

**if**(*a*[j]<*a*[k]){

**int** temp=*a*[j];

*a*[j]=*a*[k];

*a*[k]=temp;}}}

**for**(**int** j=0;j<n;j++)

{

System.***out***.println(*a*[j]);

}

}

}