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) {

**int** val1,val2,sum;

val1=5;

val2=6;

sum=val1+val2;

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

}

}

2. 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*;

**static** **int** *val1*;

**static** **int** *val2*;

**static** **int** *sum*;

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

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

*val1*=*sc*.nextInt();

*val2*=*sc*.nextInt();

*sum* = *val1*+*val2*;

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

}

}

3.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 acad {**

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

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

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

**int** val1=*sc*.nextInt();

**int** val2=*sc*.nextInt();

*sum*(val1,val2);

}

**static** **void** sum(**int** a,**int** b)

{

**int** sum=a+b;

System.***out***.println("First number is:"+a);

System.***out***.println("Second number is:"+b);

System.***out***.println("Sum is:"+sum);

}

}

4. 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*;

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

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

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

**int** arr1[]=**new** **int**[100];

**int** arr2[]=**new** **int**[100];

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

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

**int** val1=0;

**int** val2=0;

**for**(**int** i=start;i<=end;i++){

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

{

arr1[val1++]=i;

}

**else**

{

arr2[val2++]=i;

}

}

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

**for**(**int** j=0;j<val1;j++){

System.***out***.println(arr1[j]);

}

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

**for**(**int** k=0;k<val2;k++){

System.***out***.println(arr2[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 {

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

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

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

System.***out***.print("Input: ");

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

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

{

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

}

}

}

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) {

test t=**new** test();

t.sum(2,3);

t.sum(2,3,4);

}

}

**class** test{

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

**int** sum=a+b;

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

}

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

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

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

}

}

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

Yes, we can overload a method with the same return type. It can be achieved using the number of parameters which we are passing as arguments.

For example,

We can take two methods with same name and same return type

Int sum(int a,int b){}

Int sum(int a,int b,int c){}

In above methods, we give same return type but the number of parameters of both the method is varied. we can overload these methods by calling the method with different arguments.

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*;

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

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

**int** arr[]=**new** **int**[100];

**int** temp;

System.***out***.println("Enter the size");

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

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

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

}

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

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

**if**(arr[i]>arr[j]){

temp=arr[i];

arr[i]=arr[j];

arr[j]=temp;

}

}}

**for**(**int** i=n-1;i>=0;i--){

System.***out***.println(arr[i]);

}

}

}