**C & S -2**

**Question 1:**

**Report**

**Marks: +10-0**

**Description:**

**Write a Program to Print the Alternative Even Numbers Between the Given Numbers?**

**Constraints:**

**Input           :  Two Integer Values**

**Output        :  All Alternative Even Numbers Between the Given Numbers**

**Constraints :  All the Given inputs Must be Greater than Zero, or else Print "Invalid Inputs".**

**Example:**

**Input 1    :  10 30**

**Output 1 :  12 16 20 24 28**

**Input 2    :  5 25**

**Output 2 :  6 10 14 18 22**

**Input 3     :  -5 25**

**Output 3  :  Invalid Inputs**

**Explanation:**

**NA**

**Your Code: java**

**import java.util.Scanner;**

**class Main**

**{**

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

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

**{**

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

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

**int c=0;**

**if(a <= 0 || b <= 0){**

**System.out.println("Invalid Inputs");**

**}else{**

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

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

**if(c%2==0){**

**System.out.print(i+" ");**

**}**

**c++;**

**}**

**}**

**}**

**}**

**}**

**Question 2:**

**Report**

**Marks: +10-0**

**Description:**

**Write a program to find the average of all even numbers in the given range.if the strating range is Greater than ending range then print**

**"INVALID RANGE"**

**Constraints:**

**Input :             First line of input contains Integer which denotes starting range**

**Second line of input contains Integer which denotes ending range**

**Output :         Avarage(decimal value)**

**Example:**

**Input :         10**

**30**

**Output :       20.0**

**Explanation:**

**in the above example even numbers in range are 10,12,14,16,18,20,22,24,26,28,30**

**avarage of those numbers is 20.0**

**Your Code: java**

**import java.util.Scanner;**

**public class Average{**

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

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

**int sum=0;**

**int count=0;**

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

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

**if(a>b){**

**System.out.println("INVALID RANGE");**

**}**

**else{**

**for(int i=a;i<=b;i++){**

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

**sum +=i;**

**count++;**

**}**

**}**

**float average=(float)sum/count;**

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

**}**

**}**

**}**

**Question 3:**

**Report**

**Marks: +10-0**

**Description:**

**Write a Program to Print the following series 2\*3,3\*4,4\*5,......16\*17   (Print in two ways – Pattern & Multiplied value) .**

**Constraints:**

**Input     :  Two Integer Values**

**Output  :  Print the Respective Pattern from the Given Number(First Number) to the Given Number(Second Number),**

**And**

**Print the Respective Multiplied Value from the Given Number(First Number) to the Given Number(Second Number).**

**Example:**

**Input 1    :    2 16**

**Output 1 :    2\*3, 3\*4, 4\*5, 5\*6, 6\*7, 7\*8, 8\*9, 9\*10, 10\*11, 11\*12, 12\*13, 13\*14, 14\*15, 15\*16, 16\*17**

**6, 12, 20, 30, 42, 56, 72, 90, 110, 132, 156, 182, 210, 240, 272**

**Input 2    :    10 1**

**Output 2 :    1\*2, 2\*3, 3\*4, 4\*5, 5\*6, 6\*7, 7\*8, 8\*9, 9\*10, 10\*11**

**2, 6, 12, 20, 30, 42, 56, 72, 90, 110**

**Explanation:**

**NA**

**Your Code: java**

**import java.util.Scanner;**

**class Series{**

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

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

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

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

**if(x>y){**

**x=x+y-(y=x);**

**}**

**for(int i=x;i<=y;i++)**

**{**

**System.out.print(i+"\*"+(i+1));**

**if(i<y)**

**{**

**System.out.print(", ");**

**}**

**}**

**System.out.print("\n");**

**int z=0;**

**for(int i=x;i<=y;i++){**

**z=i\*(i+1);**

**if(i<y){**

**System.out.print(z+", ");**

**}**

**else{**

**System.out.print(z);**

**}**

**}**

**}**

**}**

**Question 4:**

**Report**

**Marks: +10-0**

**Description:**

**Write a program to find the count of even numbers in given range.if no even numbers print NO NUMBERS if Strating range is greater than ending range print INVALID RANGE**

**Constraints:**

**Input :                First line of input contains Integer n represent staring range**

**Second line of input contains Integer n1 represent ending range**

**Output :             Print Count of the All even Numbers in a Given Range**

**Example:**

**Input :      10**

**20**

**Output :   6**

**Explanation:**

**In the above example there are 6(including 10,20) even numbers in range of 10 and 20 are 10,12,14,16,18,20**

**Your Code: java**

**import java.util.Scanner;**

**class Range{**

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

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

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

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

**int count=0;**

**if(a==b){**

**System.out.println("NO NUMBERS");**

**}**

**else if(a>b){**

**System.out.println("INVALID RANGE");**

**}**

**else{**

**for(int i=a;i<=b;i++){**

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

**count++;**

**}**

**}**

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

**}**

**}**

**}**

**Question 5:**

**Report**

**Marks: +10-0**

**Description:**

**Write a program to print all alternative even numbers in the given range if no numbers then print NO NUMBERS if starting range is greater than ending range print INVALID INPUTS**

**Constraints:**

**Input :             First line contains an Integer n  represents starting range**

**Second line contains an Integer n1 represent ending range**

**Output :         Print Alternative Even Numbers in Range**

**Example:**

**Input  :           10**

**30**

**Output :        10 14 18 22 26 30**

**Explanation:**

**int the above example we have to print all the alternative even numbers in the range of 10 to 30 they are 10 14 18 22 26 30**

**Your Code: java**

**import java.util.Scanner;**

**class AlternateEven{**

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

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

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

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

**if(a>b){**

**System.out.println("INVALID INPUTS");**

**}**

**else{**

**int c=0;**

**for(int i=a;i<=b;i++){**

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

**if(c % 2==0){**

**System.out.print(i+" ");**

**}**

**c++;**

**}**

**}**

**if(c==0){**

**System.out.println("NO NUMBERS");**

**}**

**}**

**}**

**}**

**Question 6:**

**Report**

**Marks: +10-0**

**Description:**

**Write a program to print A,B in given number of times alternatively**

**Constraints:**

**Input :          First line of input contains Integer n**

**Output :       Print A,B for n no of times**

**Example:**

**Input :          5**

**Output :       A,B,A,B,A,B,A,B,A,B**

**Explanation:**

**N/A**

**Your Code: java**

**import java.util.Scanner;**

**class ABalternate{**

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

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

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

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

**{**

**System.out.print("A,B");**

**if(i !=n-1)**

**{**

**System.out.print(",");**

**}**

**}**

**}**

**}**

**Question 7:**

**Report**

**Marks: +10-0**

**Description:**

**Write a program to print sum of squares of the numbers in given range .if starting range is Greater than ending range print "INVALID RANGE"**

**Constraints:**

**Input :              First line of input contains a integer that denotes strating range**

**Second line of input contains a integer that denotes ending range**

**Output :           Integer that denotes sum**

**Example:**

**Input :          5**

**23**

**Output :       4294**

**Explanation:**

**Input :        5**

**23**

**Output :     4294**

**Explanation :**

**52 + 62 + 72 + 82 + 92 + 102 + 112 + 122 + 132 + 142 + 152 + 162 + 172 + 182 + 192 + 202 + 212 + 222 + 232**

**=25 + 36 + 49 + 64 + 81 + 100 + 121 + 144 + 169 + 196 + 225 + 256 + 289 + 324 + 361 + 400 + 441 + 484 + 529**

**=4294**

**Your Code: java**

**import java.util.Scanner;**

**class Sumsquare{**

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

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

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

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

**if(a>b){**

**System.out.println("INVALID RANGE");**

**}**

**else{**

**int sum=0;**

**for(int i=a;i<=b;i++){**

**sum +=i\*i;**

**}**

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

**}**

**}**

**}**

**Question 8:**

**Report**

**Marks: +10-0**

**Description:**

**Write a program to print all Odd Numbers in Given Range.if starting range is greater than ending range print "INVALID RANGE"**

**Constraints:**

**Input :              First line of input contains Integer n represent starting index**

**Second line of input contains Integer n1 represents ending index**

**Output :           Print All the Odd Numbers in a Given Range**

**Example:**

**Input :            1 10**

**Output :         1 3 5 7 9**

**Explanation:**

**in the above example you have to print all the odd numbers in range of 1 to 10 they are 1 3 5 7 9**

**Your Code: java**

**import java.util.Scanner;**

**class Odd{**

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

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

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

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

**if(a>b){**

**System.out.println("INVALID RANGE");**

**}**

**else{**

**for(int i=a;i<=b;i++){**

**if(i%2==1){**

**System.out.print(i+" ");**

**}**

**}**

**}**

**}**

**}**

**Question 9:**

**Report**

**Marks: +10-0**

**Description:**

**write a program to print all character by using char variable**

**Constraints:**

**Input :    Take a input 'a' in a char variable**

**Example:**

**a b c d e f g h i j k l m n o p q r s t u v w x y z**

**Explanation:**

**print all alphabets**

**Your Code: java**

**import java.util.Scanner;**

**class Alphabet{**

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

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

**char c=sc.next().charAt(0);**

**for(int i=1;i<=26;i++){**

**System.out.print(c+" ");**

**c++;**

**}**

**}**

**}**

**Question 10:**

**Report**

**Marks: +10-0**

**Description:**

**Write a program to print sum of all even numbers in between the Given Numbers if no even numbers print NO NUMBERS if starting range is greater than ending range then print INVALID RANGE**

**Constraints:**

**Input :                First line of input contains an Integer n reperesent starting range**

**Second line of input contains an Integer n1 reperesent ending range**

**Output :            Print sum of all even numbers in given range**

**Example:**

**Input :          20**

**40**

**Output :       270**

**Explanation:**

**in the above example we have to sum all the even numbers in between 20 and 40**

**22+24+26+28+30+32+34+36+38=270**

**Your Code: java**

**import java.util.Scanner;**

**class Sum{**

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

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

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

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

**int sum=0;**

**int count=0;**

**if(a>b){**

**System.out.println("INVALID RANGE");**

**}**

**else{**

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

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

**sum +=i;**

**count++;**

**}**

**}**

**if(count>0){**

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

**}**

**else{**

**System.out.println("NO NUMBERS");**

**}**

**}**

**}**

**}**