

Ques

Question +

write a program to print number from 1 to 10.

class number

{

public static void main (String args [])

{  
System.out.println ("1 to 10 numbers  
are ");

for (int i=0; i<=10; i++)

{

System.out.println (i);

}

}

question 2

Write a program to calculate the sum of first 10 natural number.

public class Natural

{

public static void main (String args [])

{

int j, sum = 0;

System.out.println ("First 10 natural numbers")

for (j = 1; j <= 10; j++)

{

sum = sum + j;

System.out.println (j);

System.out.println("sum of first  
natural numbers = " + sum);

}

}

5

### Question 8

Write a program that prompt the user to  
input a positive numbers integer.

It should then print the multiplication  
table of that number.

import java.util.\*;

class table

{

15 public static void main (String args [ ] )

{

int n = Integer.parseInt (args [0] );

int h , i;

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

{

h = n\*i;

System.out.println (" Multiplication=" + h)

}

}

25

#### Question 4

write a program to find the factorial value of any number entered through the keyboard.

```
5    public class fact
{  
    System.out.println  
    public static void main (String args [])  
    {  
        int n, c, f=1;  
        System.out.println ("enter number");  
        Scanner in = new Scanner (System.in);  
        n = in.nextInt();  
        if (n<0)  
            System.out.println ("number should be  
            non negative..");  
        else  
            for (c=1; c<=n; c++)  
                f = f*c;  
            System.out.println ("factorial = " +f);  
    }  
}
```

#### Question 5

Two numbers are entered through the keyboard.  
write a program to find the value of raised to the power of another.

```
import java.util.Scanner;  
public class powerofNumber {  
    public static void main (String args[]){  
        Scanner sc = new Scanner (System.in);  
        System.out.println ("Enter the base number");  
        int base = sc.nextInt();  
        int temp = base;  
        System.out.println ("Enter the Exponent  
        number :");  
        int exp = sc.nextInt();  
        for (int i=1; i<exp; i++)  
        {  
            temp = temp * temp;  
        }  
        System.out.println ("Result of " + base +  
        " power " + exp + " is " + temp);  
    }  
}
```

20 Output :

Enter the base Number ::

12

Enter the exponent Number ::

2

Result of 12 power 2 is 144

**Question 6**

Write a program that prompts the user to input an integer and then outputs the number with the digits number reversed. For example if the input is 12345, the output should be 54321.

```
class Reverse
```

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

```
    int num = Integer.parseInt (args [0]);
```

```
    int Rem, result = 0;
```

```
    while (num > 0)
```

```
{
```

```
    Rem = num % 10;
```

```
    Result = result * 10 + rem;
```

```
    num = num / 10;
```

```
}
```

```
System.out.println ("reverse Number is = " + result);
```

```
}
```

```
}
```

**Question 7**

Write a program that read a set of integers, and print the sum of even & odd integer

```
import java.util.Scanner;
```

```
public class SumOddEven
```

```
public static void main (String args[])
{
    int n , sumE=0 , sumO=0;
    scanner s = new scanner (System.in);
    System.out.println ("Enter the no. of
elements in the array : ");
    n = s.nextInt();
    int [] a = new int [n];
    System.out.println ("Enter the element
of the array ");
    for (int i=0 ; i<n; i++)
    {
        a[i] = s.nextInt();
    }
    for (int i=0 ; i<n; i++)
    {
        if (a[i] % 2 == 0)
        {
            sumE = sumE + a[i];
        }
        else
        {
            sumO = sumO + a[i];
        }
    }
    System.out.println ("Sum of Even Numbers
: " + sumE);
    System.out.println ("Sum of Odd Numbers
+ " + sumO);
}
```

output : Enter the number of element in  
the array : 6  
Enter the elements of the array :  
1  
3  
2  
6  
7  
9

Sum of even numbers : 8

Sum of odd numbers : 20

### question 8

write a program that prompts the user to input  
a positive integer. It should then output a  
message indicating whether number is prime  
number.

class primeNo

{

    public static void main (String args [])

{

    int num= Integer.parseInt (args [0])

    int flag=0;

    for (int i= 2; i<num; i++)

{

        if (num % i == 0)

{

            System.out.println (num + " is not a  
            prime Number");

flag = 1;  
break ;  
if (flag == 0)

System.out.println ("Numt" is a prime Num);

5 Question 9

Write a program to calculate HCF of Two given number.

```
import java.util.Scanner;  
10 public class GCDofTwoNumbers {  
public static void main (String args []) {  
int a, b, i, hcf = 0;  
Scanner sc = new Scanner (System.in);  
System.out.println ("Enter 1st number");  
15 a = sc.nextInt();  
System.out.println ("Enter 2nd number");  
b = sc.nextInt();  
for (i=1; i<=a || i<=b; i++) {  
if (a % i == 0 && b % i == 0)  
20 hcf = i;  
}  
System.out.println ("HCF of given two  
numbers is :: " + hcf);  
}  
}
```

25 Output :

Enter 1st Number :: 625

Enter 2nd Number :: 125

HCF of given two numbers :: 125

### Question 19

write do while-loop that asks to enter two numbers. The number should be added and the sum displayed. The loop should ask the user whether he or she wishes to perform the operation again if so, the loop should repeat, otherwise should terminate.

```
import java.util.*;  
public class sumdemo  
{  
    public static void main (String args[])  
    {  
        int n1, n2;  
        char choice;  
        Scanner sc = new Scanner (System.in);  
        do {  
            System.out.println (" Enter the first number ");  
            n1 = sc.nextInt();  
            System.out.println (" Enter the second number ");  
            n2 = sc.nextInt();  
            System.out.println (" Sum of the two numbers are = " + (n1+n2));  
            Perform action again;  
            choice=sc.nextInt(); charAt(0);  
            while (choice=='Y'||choice=='y');  
        }  
    }  
}
```

## Question 11

write a program to enter the number till the user wants and at the end it should repeat display the count of positive, negative and zeros entered

```
import java.util.Scanner;
public class quoraprogram
{
    public static void main (String args[])
    {
        Scanner sc = new Scanner (System.in);
        char opt = 'Y';
        int counter = 0, nve = 0, pve = 0, zero = 0, num;
        while (opt == 'Y' || opt == 'y')
        {
            ++ counter;
            System.out.println ("Enter the number");
            num = Scan.nextInt();
            if (num == 0)
                ++ zero;
            else if (num > 0)
                ++ pve;
            else if (num < 0)
                ++ nve;
            System.out.println ("Enter 'Y' if you
wishes to continue else 'N'!");
            opt = Scan.next().charAt(0);
        }
    }
}
```

```
System.out.println ("Total Number of  
entries : " + counter);  
System.out.println ("Negative entries : " + ne  
System.out.println ("positive entries : " + pve)  
System.out.println ("zero entries : " + zero);  
Scanner.close();  
}  
}
```

### Output

Enter the number : 23

Enter 'y' if you wish to continue else enter 'N'  
Y

Enter the Number : 0

Enter 'y' if you wish to continue else enter 'N'  
Y

→

Enter the Number : 7

Enter 'y' if you wish to continue else enter 'N'  
N

Total Number of entries : 5

Negative entries : 2

positive entries : 1

zero entries : 1

### question 12

write a program to enter the numbers till the user wants and at the end the display the largest and smallest Number entered.

output :

Enter the Number : 5

Do you want to continue x/n? y

Enter the Number : 2

Do you want to continue x/n? n

Highest Number : 5

Smallest Number : 2

question 13

Write a program to print out all Armstrong number between 1 to 500. If sum of cubes of each digit of the number is equal to the number is called an armstrong Number

public class Arm

{

public static void main (String args [] )

{

int num, temp, rem=0; sum=0, i, cube;

num = 1;

temp = 1;

for (i=1; i<500; i++)

R

while (num != 0)

{

rem = num % 10;

cube = (rem \* rem \* rem);

sum = sum + cube;

num = num / 10;

}

```
if (sum == temp)
    System.out.println (+temp);
```

```
rem = 0;
```

```
sum = 0;
```

```
cube = 0;
```

```
temp = i+1;
```

```
num = i+1;
```

```
}
```

```
}
```

```
}
```

~~Output~~

15

### Question 14

write a program to print Fibonacci Series  
of n terms n is input by user: 0 1 1 2 3 5 8

```
20 import java.util.*;
```

```
public class fiboo
```

```
{
```

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

```
scanner sc = new scanner (System.in);
int a=0, b=1, c, i, n;
```

```
System.out.println ("enter the number");
n = sc.nextInt();
```

```
n = sc.nextInt();
```

```
System.out.println ("Fibonacci Series -");
System.out.println ();
System.out.println (1);
for (i=1; i<=n-2; i++)
{
    c=a+b;
    System.out.println (c);
    a=b;
    b=c;
}
}
}
}

15
output
```

### question 15

write a program to calculate the sum of  
following series where n is input by user.

$$1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5} + \dots + \frac{1}{n}$$

```
import java.util.Scanner;
```

```
public class Sum_Series
```

```
{
```

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

```
    double sum=0;
```

```
    int n;
```

```
    System.out.println ("1/1 + 2/2 + 3/3 + ... n/n");
```

Scanner s = new Scanner (System.in);  
System.out.println("Enter the no. or  
term in Series : ");

n = s.nextInt();

sum-series obj = new sum-series();

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

{

Sum = sum + (double)i / (obj.fact(i))

}

System.out.println("sum of Series : " + Sum);

}

int fact (int x)

{

int mul = 1;

while (x>0)

{

mul = mul\*x;

x--;

}

return mul;

}

}

Output :

1/1! + 2/2! + 3/3! ... n/n!

Enter the no. of series 3

Sum of Series : 2.7083333

## question 16

Compute the natural logarithm of 2 by adding up to n term in the series  
 $1 - 1/2 + 1/3 - 1/4 + 1/5 - \dots - 1/n$   
where n is positive integer and input by user.

```
import java.util.*;
public class Log
{
    public static void main (String args[])
    {
        Scanner sc= new Scanner (System.in)
        int i, n, sign = -1;
        double sum = 0;
        System.out.println ("enter the Value of n")
        n= sc.nextInt ();
        for (i=1; i<=n; i++)
        {
            sign *= -1;
            sum+= sign * 1.0/i;
        }
        System.out.println (" log 2 : "+sum);
    }
}
```

output :

## question 17

write a program to generate a random number and asks the user to guess what the Number is. if the user's guess is higher than the random number, the program should display "Too high, try again." If the user's guess is lower than the random number, the program should display "Too low, try again!" The program should use a loop that repeats until the user correctly guesses the random number.

```
import java.util.Scanner;
```

```
import java.util.Random;
```

```
public class Guessing {
```

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

```
{
```

```
Scanner kb = new Scanner (System.in);
```

```
Random rand = new Random();
```

```
int num = rand.nextInt(100) + 1;
```

```
int guess = 0;
```

```
int count = 0;
```

```
int guesses = 0;
```

```
do {
```

```
    System.out.println("Guess what number I have (1-100)?");
```

```
    guess = kb.nextInt(); guess++;
```

```
    if (num > guess) {
```

```
        System.out.println("Too high, try again");
```

```
3 else if (num < guess) {
    System.out.println ("Too low, try again");
3 else {
    System.out.println ("You're right the
        num is " + num);
    System.out.println ("You guessed " + guess + " times");
3 } while (guess != num); 3 }
```

### question 18

write a program to print following :

```
* * * * * * * * *
* * * * * * * * *
* * * * * * * * *
* * * * * * * * *
```

```
public class Recstar
```

```
{
```

```
int i, j;
```

```
for (i=1; i<=5; i++)
```

```
{
```

```
for (j=1; j<=i; j++)
```

```
{
```

```
System.out.println ("*");
```

```
}
```

```
System.out.println ();
```

```
}
```

```
}
```

```
}
```

2)

```
*  
* *  
* * *  
* * * *  
* * * *
```

```
public class Star2
```

{

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

{

```
int i, j, k;
```

```
for (i=1; i<=5; i++)
```

{

```
    for (j=5; j>i; j--)
```

{

```
        System.out.println (" ");
```

{

```
    for (k=1; k<=i; k++)
```

{

```
        System.out.println (" *");
```

{

```
    System.out.println ();
```

{

{

{

3)

```
*  
* *  
* * *  
* * * *  
* * * *
```

```
class star {
    public static void main (String args[])
    {
        int i, j;
        for (i=0; i<n; i++)
        {
            for (j=2 * (n-1); j>=0; j--)
            {
                System.out.println (" ");
                for (j=0; j<=i; j++)
                {
                    System.out.println ();
                }
            }
        }
    }
}
```

4)  
\*  
\* \* \*  
\*\*\*\*\*  
\* \* \* \* \* \* \*  
\* \* \* \* \* \* \*

```
public class star
{
    public static void main (String args[])
    {
        int i, j;
        for (i=1; i<=4; i++)
        {
            for (j=1; j<=10; j++)
            {
                System.out.println (" * ");
            }
            System.out.println ();
        }
    }
}
```

5)

1  
2 2 2

3 3 3 3 3

4 4 4 4 4 4 4

5 5 5 5 5 5 5 5 5

```
import java.util.Scanner;
```

```
public class demo
```

{

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

```
{ Scanner sc = new Scanner (System.  
System.out.println("Enter the number  
of rows "));
```

```
int rows = sc.nextInt();
```

```
for (int i=1; i<=rows; i++)
```

{

```
for (int j=1; j<=i; j++)
```

{

```
System.out.println (i + " ");
```

}

```
System.out.println();
```

}

```
sc.close();
```

}

}

6)

1

2 1 2

3 2 1 2 3

4 3 2 1 2 3 4

```

public class one
{
    public static void main (String args[])
    {
        int i, j, k;
        for (i=1; i<=5; i++)
        {
            for (j = 5; j>i; j--)
            {
                System.out.println (" ");
            }
            for (k=1; k<=2*i-1; k++)
            {
                System.out.print ("+");
            }
            System.out.println ();
        }
    }
}

```

question 19

write a program sinx for given x. The user should supply x and a positive integer n. we Compute the Sine of x using the series the Computation should use term in the series up through the term invoking  $x^n$

$$\sin x = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \frac{x^9}{9!} \dots$$

```
import java.util.*;
```

```
public class sin
```

```
{
```

```
    public static void main (String args)
```

```
{
```

```
    Scanner sc = new Scanner (System.
```

```
    int i, j, n, fact, sign = -1;
```

```
    float x, p, sum = 0;
```

```
    System.out.println ("Enter the value  
of x = ");
```

```
    x = sc.nextInt();
```

```
    for (i=1; i<=n; i+=2)
```

```
{
```

```
    p = 1;
```

```
    fact = 1;
```

```
    for (j=1; j<=i; j++)
```

```
}
```

```
    sign = -1 * sign;
```

```
    sum += sign * p / fact;
```

```
    System.out.println ("sin = " + sum);
```

```
}
```

```
}
```

## question 20

write a program to compute the cosine of x. the user should supply x and a positive integer n. we compute the cosine of x using the series and the computation should use all term in the series up through the term involving  $x^n$

$$\cos x = 1 - x^2/2! + x^4/4! - x^6/6! \dots$$

```
import java.util.*;
```

```
public class cos
```

```
{
```

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

```
{
```

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

```
int i, j, n, fact, sign = -1;
```

```
float x, p, sum = 0;
```

```
System.out.println ("enter the value of  
x = ");
```

```
x = sc.nextInt();
```

```
System.out.println ("enter the value of n = ")
```

```
n = sc.nextInt();
```

```
for (i=1; i<=n; i+=2)
```

```
{ for p=1;
```

```
fact = 1;
```

```
for (j=1; j<=i; j++) {
```

```
p = p * x;
```

```
fact = fact + j; }
```

```
sum += sign * p / fact;
```