**Question 1**

Write a program to print numbers from 1 to 10.

Int num1=1;

System.out.println(num1);

Num++;

System.out.println(num1);

Num++;

System.out.println(num1);

Num++;

Show the answer.

public class PrintNumbers

{

public static void main(String[] args)

{

for(int i=1; i<=10; i++)//4

{

System.out.print(i);//1 2 3 4 }

}

}

**Question 2**

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

Show the answer.

public class SumNumbers 1 2 3+4 7 + 5 = 12+6==18

{

public static void main(String[] args)

{

int sum = 0;

for(int i=1; i<=10; i++)//4

{

sum += i;//3=3+3==6

}

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

}

}

**Question 3**

Write a program that prompts the user to input a positive integer. It should then print the multiplication table of that number.

Show the answer.

import java.util.Scanner;

public class Table

{

public static void main(String[] args)

{

Scanner console = new Scanner(System.in);

int num;

System.out.print("Enter any positive integer: ");

num = console.nextInt();//12

System.out.println("Multiplication Table of " + num);

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

{

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

12 \* 2 = 24

}

}

}

**Question 4**

Write a program to find the factorial value of any number entered through the keyboard.  2! = 2\*1

3!= 3\*2\*1

4!=4\*3\*2\*1

Show the answer.

import java.util.Scanner;

public class FactorialDemo1

{

public static void main(String[] args)

{

Scanner console = new Scanner(System.in);

int num; // To hold number

int fact = 1; // To hold factorial

System.out.print("Enter any positive integer: ");

num = console.nextInt();//4

for(int i=1; i<=num; i++)4

{

fact \*= i;//fact=fact\*I;//1=1\*2=2=2\*3=6=6\*4=24

}

System.out.println("Factorial: "+ fact);

}

}

**Question 5**

Two numbers are entered through the keyboard. Write a program to find the value of one number raised to the power of another. (Do not use Java built-in method)

Show the answer.

import java.util.Scanner;

public class PowerDemo

{

public static void main(String[] args)

{

Scanner console = new Scanner(System.in);

int base;

int power;

int result = 1;

System.out.print("Enter the base number ");

base = console.nextInt();//2

System.out.print("Enter the power ");

power = console.nextInt();//4

for(int i = 1; i <= power; i++)//5<=4

{

result \*= base;//8=2\*8==16

}

System.out.println("Result: "+ result);//16

}

}

**Question 6**

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

Show the answer.

import java.util.Scanner;

public class ReverseNumber

{

public static void main(String[] args)

{

Scanner console = new Scanner(System.in);

int number;

int reverse = 0;

System.out.print("Enter the number ");

number = console.nextInt();

int temp = number;// temp=12345

int remainder = 0;

while(temp>0)//12>0

{

remainder = temp % 10;//12345%10=5 1234%10=4 123%10=3 12%10=2 1%10=1

reverse = reverse \* 10 + remainder;//5432\*10+1 54321

temp /= 10;//temp=temp/10 1234=1234/10=123 123/10=12 12/10= 1

}

System.out.println("Reverse of " + number + " is " + reverse);

}

}

**Question 7**

Write a program that reads a set of integers, and then prints the sum of the even and odd integers.

Show the answer.

import java.util.Scanner;

public class ReadSetIntegers

{

public static void main(String[] args)

{

Scanner console = new Scanner(System.in);

int number;

char choice;

int evenSum = 0;

int oddSum = 0;

do

{

System.out.print("Enter the number ");

number = console.nextInt();

if( number % 2 == 0)

{

evenSum += number;//evensum=evensum+number 12=12+14

}

else

{

oddSum += number;//0=0+13=13=13+15 ==28

}

System.out.print("Do you want to continue y/n? ");

choice = console.next().charAt(0);

}while(choice=='y' || choice == 'Y');

System.out.println("Sum of even numbers: " + evenSum);

System.out.println("Sum of odd numbers: " + oddSum);

}

}

**Question 8**

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

Show the answer.

import java.util.Scanner;

public class TestPrime

{

public static void main(String[] args)

{

Scanner console = new Scanner(System.in); 6 2 3 4 5

int number;

System.out.print("Enter the positive integer ");

number = console.nextInt();

## boolean flag = true;

6

for(int i = 2; i < number; i++)

{

if(number % i == 0)//6%2==0

{

flag = false;

break;

}

}

if(flag && number > 1)//(false && true) false

{

System.out.println("Number is prime");

}

else

{

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

}

}

}

**Question 9**

Write a program to calculate HCF of Two given number.

Show the answer.

import java.util.Scanner;

public class FindHcf

{

public static void main(String[] args)

{

Scanner console = new Scanner(System.in);

int dividend, divisor;

int remainder, hcf = 0;

System.out.print("Enter the first number ");

dividend = console.nextInt(); //10

System.out.print("Enter the second number ");

divisor = console.nextInt(); //7

do

{

remainder = dividend % divisor;//7%1==0

if(remainder == 0)

{

hcf = divisor; //5

}

else

{

dividend = divisor;//7

divisor = remainder;//1

}

}while(remainder != 0);

System.out.println("HCF: " + hcf);

}

}

**Question 10**

Write a do-while loop that asks the user to enter two numbers. The numbers 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 it should terminate.

Show the answer.

import java.util.Scanner;

public class SumAgain

{

public static void main(String[] args)

{

Scanner console = new Scanner(System.in);

int number1, number2;

char choice;

do

{

System.out.print("Enter the first number ");

number1 = console.nextInt();

System.out.print("Enter the second number ");

number2 = console.nextInt();

int sum = number1 + number2;

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

System.out.print("Do you want to continue y/n? ");

choice = console.next().charAt(0);

System.out.println();

}while(choice=='y' || choice == 'Y');

}

}

**Question 11**

Write a program to enter the numbers till the user wants and at the end it should display the count of positive, negative and zeros entered.

Show the answer.

import java.util.Scanner;

public class CountNumbers

{

public static void main(String[] args)

{

Scanner console = new Scanner(System.in);

int number,

countPositive = 0,

countNegative = 0,

countZero = 0;

char choice;

do

{

System.out.print("Enter the number ");

number = console.nextInt();

if(number > 0)

{

countPositive++;

}

else if(number < 0)

{

countNegative++;

}

else

{

countZero++;

}

System.out.print("Do you want to continue y/n? ");

choice = console.next().charAt(0);

}while(choice=='y' || choice == 'Y');

System.out.println("Positive numbers: " + countPositive);

System.out.println("Negative numbers: " + countNegative);

System.out.println("Zero numbers: " + countZero);

}

}

**Question 12**

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

Show the answer.

import java.util.Scanner;

public class FindMaxMin

{

public static void main(String[] args)

{

Scanner console = new Scanner(System.in);

int number;

int max = Integer.MIN\_VALUE; // Intialize max with minimum value

int min = Integer.MAX\_VALUE; // Intialize min with maximum value

char choice;

do

{

System.out.print("Enter the number ");

number = console.nextInt();//2

if(number > max)//3>12

{

max = number;//12

}

if(number < min)//3<0

{

min = number;

}

System.out.print("Do you want to continue y/n? ");

choice = console.next().charAt(0);

}while(choice=='y' || choice == 'Y');

System.out.println("Largest number: " + max);

System.out.println("Smallest number: " + min);

}

}