1)

```
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
   }
  }
}
```

2)

```
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);
    }
}
```

3)

```
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
        }
    }
}
```

Output:

4)

```
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);
    }
}
```

5)

```
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
    }
}
```

6)

```
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);
    }
}
```

7)

```
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);
    }
}
```

8)

```
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");
        }

    }
}
```

9)

```
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);
```

```
    }
}
```

10)

```
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');
    }
}
```

11)

```
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);
    }
}
```

12)

```
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);
    }
}
```