Java Assignment-3 Loops

1. WAP to display your name 5 times on screen.

class Java\_Programming

{

public static void main(String[] args)

{

int i;

for (i = 0; i < 5; i++)

{

System.out.println("Java Programming: ");

}

}

}

Output:---

Java Programming:

Java Programming:

Java Programming:

Java Programming:

Java Programming:

2. WAP to display no 1 to 10 on screen.

class Digit

{

public static void main(String[] args)

{

System.out.println("Number are :");for(int i = 1; i <= 10; i++)

{

System.out.println(i);

}

}

}

Output:--

Number are :

1

2

3

4

5

6

7

8

9

10

3. WAP to display first 10 even numbers

class Even\_2

{

public static void main(String[] args)

{

int num=20,i;

System.out.println("First 10 Even Numbers are :");

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

{

if(i%2==0)

{

System.out.println(i);

}

}

}

}

Output:-

First 10 Even Numbers are :

2

4

6

8

10

12

14

16

18

20

4. WAP to display first 100 odd numbers.

class Odd

{

public static void main(String[] args)

{

int num=200,i;

System.out.println("First 100 Odd Numbers are :");

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

{

if(i%2==1)

{

System.out.println(i);

}

}

}

}

5. WAP to display the table of any number.

import java.util.Scanner;

class Table

{

public static void main(String[] args)

{

Scanner s = new Scanner(System.in);

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

int n=s.nextInt();

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

{

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

}

}

}

Output:--

Enter number:15

15 \* 1 = 15

15 \* 2 = 30

15 \* 3 = 45

15 \* 4 = 60

15 \* 5 = 75

15 \* 6 = 90

15 \* 7 = 105

15 \* 8 = 120

15 \* 9 = 135

15 \* 10 = 150

6. WAP to display the sum of first 10 natural number(1 2 3…)

class Natural\_No

{

public static void main(String[] args)

{

int i, num = 10, sum = 0;

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

{

sum = sum + i;

}

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

}

}

Output:--

Sum is :55

7. WAP to display Characters from A to Z Using Loop

class Alphabets\_2

{

public static void main(String[] args)

{

char i,j;

System.out.printf("The Alphabets from A to Z are: \n");

for (i = 'A'; i <= 'Z'; i++)

{

System.out.printf("%c ", i);

}

System.out.printf("\n...............................\n");

for(j='a';j<='z';j++)

{

System.out.printf("%c ", j);

}}

}

Output:--

The Alphabets from A to Z are:

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

...............................

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

8. WAP to display the series from 10 to 1 in reverse order.

import java.util.Scanner;

class Reverse

{

public static void main(String[] args)

{

int number, i;

Scanner sc = new Scanner(System.in);

System.out.print("Enter the Number: ");

number = sc.nextInt();

for(i = number; i >= 1; i--)

{

System.out.println(i);

}

}

}

Output:--

Enter the Number: 10

10

9

8

7

6

5

4

3

2

1

9. WAP to display the reverse of a number.

import java.util.Scanner;

class Reverse\_Number

{

public static void main(String args[])

{

int num=0;

int reversenum =0;

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

Scanner in = new Scanner(System.in);

num = in.nextInt();

while( num != 0 )

{

reversenum = reversenum \* 10;

reversenum = reversenum + num%10;

num = num/10;

}

System.out.println("Reverse of the Number is:"+reversenum);

}

}

Output:--

Number is:

456

Reverse of the Number is:654

10. WAP to check whether a no is palindrome or not

class Palindrome

{

public static void main(String args[])

{

int r,sum=0,temp;

int n=454;

temp=n;

while(n>0){

r=n%10;

sum=(sum\*10)+r;

n=n/10;

}

if(temp==sum)

{

System.out.println("454 is a Palindrome number ");

}

else

{

System.out.println("not palindrome");

}

}

}

Output:---

454 is a Palindrome number

11. WAP to calculate the power of any base

import java.util.Scanner;

public class Power

{

public static void main(String[] args)

{

int number, i, exponent;

long power = 1;

Scanner sc = new Scanner(System.in);

System.out.print("Enter any Number : ");

number = sc.nextInt();

System.out.print("Enter the Exponent Value : ");

exponent = sc.nextInt();

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

{

power = power \* number;

}

System.out.println("Power is "+ power);

}

}

Output:--

Enter any Number : 4

Enter the Exponent Value : 4

Power is 256

12. WAP to check whether the number is armstrong number or not

import java.util.Scanner;

class Armstrong

{

public static void main(String[] args)

{

int c=0,a,temp,n;

System.out.println("Enter a Number:");

Scanner s=new Scanner(System.in);

n=s.nextInt();

temp=n;

while(n>0)

{

a=n%10;

n=n/10;

c=c+(a\*a\*a);

}

if(temp==c)

System.out.println("armstrong number");

else

System.out.println("Not armstrong number");

}

}

Output:--

Enter a Number:

153

armstrong number

13. WAP to calculate factorial of any number without recursion

import java.util.Scanner;

class Factorial

{

public static void main(String[] args)

{

int n, mul = 1;

Scanner s = new Scanner(System.in);

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

n = s.nextInt();

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

{

mul = mul \* i;

}

System.out.println("Factorial of "+n+" :"+mul);

}

}

Output:---

Enter any integer:--4

Factorial of 4 :24

14. WAP to calculate the sum of digits in a number.

import java.util.Scanner;

class Sum\_of\_digits

{

public static void main(String arg[])

{

long n,sum;

Scanner sc=new Scanner(System.in);

System.out.println("Enter a number ");

n=sc.nextLong();

for(sum=0 ;n!=0 ;n/=10)

{

sum+=n%10;

}

System.out.println("Sum of digits of a number is "+sum);

}

}

Output:--

Enter a number

3698452

Sum of digits of a number is 37

15. WAP to count the number of digits in a number.

import java.util.Scanner;

class Number\_2

{

public static void main(String[] args)

{

int count = 0, num;

System.out.println("Enter any Integer:");

Scanner s=new Scanner(System.in);

num=s. nextInt();

while (num != 0)

{

num /= 10;

++count;

}

System.out.println("Number of digits: " + count);

}

}

Output:--

Enter any Integer:

852741

Number of digits: 6

16. WAP to calculate factorial of any number with recursion

class Factorial\_WR

{

public static void main(String[] args)

{

int num = 6;

long factorial = multiplyNumbers(num);

System.out.println("Factorial of " + num + " = " + factorial);

}

public static long multiplyNumbers(int num)

{

if (num >= 1)

return num \* multiplyNumbers(num - 1);

else

return 1;

}

}

Output:--

Factorial of 6 = 720

17. WAP to display the Fibonacci series( 0 1 1 2 3 5 8 13 21 34)

class Fibonacci {

public static void main(String[] args) {

int n = 10, t1 = 0, t2 = 1;

System.out.println("Numbers are :"+ n);

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

{

System.out.print(" "+t1); //(print)prints all the values in same line

int sum = t1 + t2;

t1 = t2;

t2 = sum;

}

}

}

Output:--

Numbers are :10

0 1 1 2 3 5 8 13 21 34

18. WAP to check whether the number is prime or not

class Prime

{

public static void main(String[] args) {

int num = 7;

boolean flag = false;

for (int i = 2; i <= num / 2; ++i)

{

if (num % i == 0) {

flag = true;

break;

}

}

if (!flag)

System.out.println(num + " is a prime number.");

else

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

}

}

Output:--

7 is a prime number

19. WAP to get the prime numbers between a given range.

import java.util.Scanner;

class Prime\_Numbers

{

public static void main(String args[])

{

int i,j,m,n,count;

System.out.println("Enter the Two Numbers:");

Scanner p=new Scanner(System.in);

System.out.println("First Number is:");

m=p.nextInt();

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

n=p.nextInt();

System.out.println("Prine Numbers are:");

for(i=m;i<=n;i++)

{

count=0;

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

{

if(i%j==0)

count=count+1;}

if(count==2)

System.out.println(i);

}}

}

Output:-

First Number is:

50

Second number is:

100

Prine Numbers are:

53

59

61

67

71

73

79

83

89

97

20. WAP to display Floyd Triangle

import java.util.Scanner;

class Floyd

{

public static void main(String args[])

{

int rows, number = 1, counter, j;

Scanner input = new Scanner(System.in);

System.out.println("Enter the number of rows :");

rows = input.nextInt();

System.out.println("Floyd's triangle");

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

for ( counter = 1 ; counter <= rows ; counter++ )

{

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

{

System.out.print(number+" ");

//Incrementing the number value

number++;

}

//For new line

System.out.println();

}

}

}

Output:--

Enter the number of rows :

4

Floyd's triangle

..........................

1

2 3

4 5 6

7 8 9 10

22.WAP to display the reverse of String.

import java.util.Scanner;

public class Reverse\_String

{

public static void main(String[] args)

{

System.out.println("Enter string to reverse:");

Scanner read = new Scanner(System.in);

String str = read.nextLine();

String reverse = "";

for(int i = str.length() - 1; i >= 0; i--)

{

reverse = reverse + str.charAt(i);

}

System.out.println("Reversed string is:"+reverse);

}

}

Output:---

Enter string to reverse:

TIIN

Reversed string is:NIIT

23.WAP to check whether the String Is palindrome or not.

import java.util.Scanner;

class Palindrome\_S

{

public static void main(String args[])

{

int n;

String a, b = "";

Scanner s = new Scanner(System.in);

System.out.print("Enter the string :");

a = s.nextLine();

n = a.length();

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

{

b = b + a.charAt(i);

}

if(a.equals(b))

{

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

}

else

{

System.out.println("Not a Palindrome.");

}

}

}

Output:--

Enter the string :Palindrome

Not a Palindrome.

Enter the string :radar

Palindrome.