1. **// program to find even or odd**

import java.util.Scanner;

class A1\_1 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

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

int num = sc.nextInt();

if ( num % 2 == 0 ) {

System.out.println("Even");

}

else {

System.out.println("Odd");

}

}

}

**2. // program to find factorial of a number**

import java.util.Scanner;

class A1\_2 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

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

int num = sc.nextInt();

int fact = 1;

while ( num != 1 ) {

fact \*= num;

num--;

}

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

}

}

**3. // program to find factorial using Recursion**

class A1\_3 {

public static void main(String[] args) {

int n = 6;

System.out.println("Factorial is : " + factorial(n));

}

public static int factorial(int n) {

if ( n == 1 )

return 1;

else

return n \* factorial(n-1);

}

}

**4. // program to swap numbers without using third variable**

class A1\_4 {

public static void main(String[] args) {

int a = 10;

int b = 20;

System.out.println("Before Swap : ");

System.out.println("a = " + a + " b = " + b);

a = a + b;

b = a - b;

a = a - b;

System.out.println("After Swap : ");

System.out.println("a = " + a + " b = " + b);

}

}

**5. // check number is positive or negative**

class A1\_5 {

public static void main(String[] args) {

int n = -1;

if ( n >= 0 ) {

System.out.println(n + " is Positive");

}

else {

System.out.println(n + " is Negative");

}

}

}

**6. // year is leap year or not**

import java.util.Scanner;

class A1\_6 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int year = sc.nextInt();

if ( year % 400 == 0 || (year % 100 != 0) && (year % 4 == 0) )

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

else

System.out.println("Not Leap year");

}

}

**7. // print 1 to 10 without using loop**

class A1\_7 {

public static void main(String[] args) {

System.out.print("1 2 3 4 5 6 7 8 9 10");

}

}

**8. // print digits of given number**

import java.util.Scanner;

class A1\_8 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int n = sc.nextInt();

int digit;

while ( n != 0 ) {

digit = n % 10;

n /= 10;

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

}

}

}

**9. // factors of a given number**

import java.util.Scanner;

class A1\_9 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int n = sc.nextInt();

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

if ( n % i == 0 )

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

}

}

}

**10. // sum of digits of a given number**

import java.util.Scanner;

class A1\_10 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int n = sc.nextInt();

int digit = 0;

int sum = 0;

while ( n != 0 ) {

digit = n % 10;

n /= 10;

sum += digit;

}

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

}

}

**11. // smallest of three numbers**

class A1\_11 {

public static void main(String[] args) {

int a = 1;

int b = 10;

int c = 5;

if ( a < b && a < c )

System.out.println("Smallest : " + a);

else if ( b < c )

System.out.println("Smallest : " + b);

else

System.out.println("Smallest : " + c);

}

}

**12. // adding two numbers without arithmetic operators : &, ^, <<**

class A1\_12 {

public static void main(String[] args) {

int a = 50;

int b = 50;

int carry;

do {

carry = a & b;

a = a ^ b;

b = carry << 1;

}while( carry != 0 );

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

}

}

13.

14.

**15. // LCM of two numbers**

class A1\_15b {

public static void main(String[] args) {

int a = 12;

int b = 11;

int i = 2;

int temp = b;

while ( temp % a != 0 ){

temp = b;

temp \*= i;

i++;

}

System.out.println("LCM : " + temp);

}

}

**18. // prime factors of a number**

class A1\_18 {

public static void main(String[] args){

int n = 150;

System.out.print("Prime Factors of " + n + " are ");

for ( int i = 2; i < n; i++ ) {

if ( n % i == 0 ) {

//check i is prime or not

boolean isPrime = true;

for ( int j = 2; j <= (i / 2); j++ ) {

isPrime = false;

break;

}

if ( isPrime )

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

}

}

}

}

**19. // Even series 2,4,6,8,10**

import java.util.Scanner;

class A1\_19 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int n = sc.nextInt();

int i = 2;

while ( n != 0 ) {

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

i += 2;

n--;

}

}

}

**20. // prime factors of a number**

class A1\_18 {

public static void main(String[] args){

int n = 150;

System.out.print("Prime Factors of " + n + " are ");

for ( int i = 2; i < n; i++ ) {

if ( n % i == 0 ) {

//check i is prime or not

boolean isPrime = true;

for ( int j = 2; j <= (i / 2); j++ ) {

isPrime = false;

break;

}

if ( isPrime )

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

}

}

}

}