**1.Harshad number 22**

Import java.util.Scanner;

Public class HarshadNumberCheck {

Public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

Int num = sc.nextInt();

Int sum = 0, temp = num;

While (temp > 0) {

Sum += temp % 10;

Temp /= 10;

}

If (num % sum == 0) {

System.out.println(“Harshad Number”);

} else {

System.out.println(“Not Harshad Number”);

}

}

}

**2.Abundant number 11**

Import java.io.\*;

Import java.util.\*;

Public class Solution {

Public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

Int n = scanner.nextInt();

Scanner.close();

Int sumOfProperDivisors = 0;

For (int I = 1; I <= n / 2; i++) {

If (n % I == 0) {

sumOfProperDivisors += I;

}

}

If (sumOfProperDivisors > n) {

System.out.println(“Abundant Number”);

} else {

System.out.println(“Not Abundant Number”);

}

}

}

**3.SUM OF DIGIT 10**

Import java.io.\*;

Import java.util.\*;

Public class Solution {

Public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

String nStr = scanner.nextLine();

Int sum = 0;

Try {

Int n = Integer.parseInt(nStr);

If (n < 100) {

System.out.println(“Invalid Input”);

} else {

While (n > 0) {

Sum += n % 10;

N /= 10;

}

System.out.println(“Sum of digit is “ + sum);

}

} catch (NumberFormatException e) {

System.out.println(“Invalid Input”);

}

Scanner.close();

}

}

**4.Fibonacci series 144**

Import java.util.Scanner;

Public class FibonacciRangeSum {

Public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

Int n = sc.nextInt();

Int m = sc.nextInt();

If (n < 1 || n > 20 || m < 1 || m > 20 || n > m) {

System.out.println(“Invalid Input”);

Return;

}

Int[] fib = new int[m + 1];

Fib[1] = 0;

If (m >= 2) {

Fib[2] = 1;

}

For (int I = 3; I <= m; i++) {

Fib[i] = fib[I – 1] + fib[I – 2];

}

Int sum = 0;

For (int I = n; I <= m; i++) {

Sum += fib[i];

}

System.out.println(“The Sum of Fibonacci value is “ + sum + “.0”);

}

}

**5.Multiplication table 79**

Import java.util.Scanner;

Public class MultiplicationTable {

Public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

Int n = sc.nextInt();

If (n < 1 || n > 9) {

System.out.println(“Invalid Input”);

Return;

}

For (int I = 1; I <= n; i++) {

System.out.println(n + “ x “ + I + “ = “ + (n \* i));

}

}

}

**6.sum of even number 1**

Import java.io.\*;

Import java.util.\*;

Public class Solution {

Public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

Int n = sc.nextInt();

Int m = sc.nextInt();

Sc.close();

If (n <= 0 || n >= 30 || m <= 0 || m >= 30 || n > m) {

System.out.println(“Invalid Input”);

} else {

Int sumOfEvens = 0;

For (int I = n; I <= m; i++) {

If (I % 2 == 0) {

sumOfEvens += I;

}

}

System.out.println(sumOfEvens);

}

}

}

**7.Armstrong number or not 13**

Import java.util.Scanner;

Public class ArmstrongNumberCheck {

Public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

Int number = scanner.nextInt();

If (number < 100 || number > 999) {

System.out.println(“No”);

Return;

}

Int originalNumber = number;

Int sumOfCubes = 0;

While (number > 0) {

Int digit = number % 10;

sumOfCubes += digit \* digit \* digit;

number /= 10;

}

If (sumOfCubes == originalNumber) {

System.out.println(“Yes”);

} else {

System.out.println(“No”);

}

}

}

**8.swap 2 digit number**

Import java.util.Scanner;

Public class SwapTwoDigits {

Public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

String input = scanner.next();

If (input.length() < 2) {

System.out.println(“STDOUT”);

Return;

}

Char firstDigit = input.charAt(0);

Char secondDigit = input.charAt(1);

Int swappedNumber = (secondDigit – ‘0’) \* 10 + (firstDigit – ‘0’);

System.out.println(swappedNumber);

}

}

**9.Count Digits in an Integer 1**

Import java.io.\*;

Import java.util.\*;

Public class Solution {

Public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

Long num = sc.nextLong();

If (num >= 1 && num <= 10000000) {

String s = String.valueOf(num);

Int digitCount = s.length();

System.out.println(“The count of the given integer is: “ + digitCount);

} else {

System.out.println(“Enter a Valid Input”);

}

Sc.close();

}

}

**10.Print a pattern 4**

Import java.util.Scanner;

Public class Solution {

Public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

Int n = scanner.nextInt();

If (n < 0 || n > 9) {

System.out.println(“Invalid Input”);

} else {

Char currentChar = ‘A’;

For (int I = 1; I <= n; i++) {

For (int j = 1; j <= I; j++) {

System.out.print(currentChar + “ “);

currentChar++;

}

System.out.println();

}

}

Scanner.close();

}

}

**11.Alphabet Diamond 1**

Import java.util.Scanner;

Public class AlphabetPattern {

Public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

Int n = sc.nextInt(); // Input

For (int I = 1; I <= n; i++) {

For (int s = 0; s < n – I; s++) {

System.out.print(“ “);

}

For (int j = 0; j < I; j++) {

System.out.print((char) (‘A’ + j) + “ “);

}

System.out.println();

}

For (int I = n – 1; I >= 1; i--) {

For (int s = 0; s < n – I; s++) {

System.out.print(“ “);

}

For (int j = 0; j < I; j++) {

System.out.print((char) (‘A’ + j) + “ “);

}

System.out.println();

}

Sc.close();

}

}