Q1 Write a program to check whether a number is a Strong number or not. Strong number is a special number whose sum of factorial of digits is equal to the original number. For example: 145 is a strong number. Since, 1! + 4! + 5! = 145

import java.util.Scanner;

public class StrongNumber {

// Method to calculate factorial of a number

public static int factorial(int n) {

int fact = 1;

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

fact \*= i;

}

return fact;

}

// Method to check if the number is a Strong number

public static boolean isStrongNumber(int number) {

int originalNumber = number;

int sumOfFactorials = 0;

while (number > 0) {

int digit = number % 10;

sumOfFactorials += factorial(digit);

number /= 10;

}

return sumOfFactorials == originalNumber;

}

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

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

int number = scanner.nextInt();

if (isStrongNumber(number)) {

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

} else {

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

}

scanner.close();

}

}

output  
Enter a number: 145

145 is a Strong number.  
  
Q2 Write a program to check leap year using if else. How to check whether a given year is a leap year or not. [Hint:Take an input of any number. Store it in some variable say year. If a year is exactly divisible by 4 and not divisible by 100, then it is a leap year. Or if a year is exactly divisible by 400 then it is a leap year.]  
  
>

import java.util.Scanner;

public class LeapYearCheck {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a year: ");

int year = scanner.nextInt();

// Check if the year is a leap year

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

System.out.println(year + " is a leap year.");

} else {

System.out.println(year + " is not a leap year.");

}

scanner.close();

}

}

OUTPUT