Problem statement:

Write a program to check whether a number is a Strong number or not?

What is a strong number?

Strong number: is a number in which the sum of factorial of individual digits of a number is equal to the original number.

For example:

145 = 1! + 4! + 5! = 1 + 24 + 120 = 145

Step #1 – calculate the factorial of each digit of a number and add them

```
q=n, fact=1, result=0;
while(q != 0)
{
    rem = q%10;
    for(i=1; i<=rem; i++)
    {
        fact = fact*i;
    }
    result = result + fact;
    fact = 1;
    q = q/10;
}
```

```
q = 145
rem = 5
fact = 1*2*3*4*5 = 120
result = 120

q = 14
rem = 4
fact = 1*2*3*4 = 24
result = 120 + 24 = 144

q = 1
rem = 1
fact = 1 = 1
result = 144 + 1 = 145
```

Step #2 – Check whether the calculated result is equal to the actual number or not.

```
if(result == number)
        printf("%d is a strong number", number);
else
        printf("%d is not a strong number", number);
```