25-11-2025 Assignment-4

1) Strong Numbers.

for example, 145 is a strong number because;

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

Ans:

```
#include <stdio.h>
int main() {
    int num, temp, digit;
    int sum = 0, fact;
    printf("enter a number: ");
    scanf("%d", &num);
    temp = num;
    while(temp > 0){
      digit = temp % 10;
    // calculate factorial of digit.
     fact = 1;
    for(int i = 1; i <= digit; i++).
    {
      fact *= i;
    }
    sum += fact;
    temp /= 10;
  }
  if (sum == num)
    printf("%d is a strong number\n", num);
else
  printf("%d is not a strong number\n", num);
return 0;
}.
```

Output:

- Enter a numbes: 145
  145 is a strong numbes.
- Enter a numbes: 123
  123 is not a strong numbes.

2) Perfect numbes.

That is equal to sum of its proper positive divisor that is ex: (divisors excluding the numbes itself) for example 6 is a perfect numbes because its propes divisors are 1, 2, and 3 and their sum (1+2+3) is equal to 6.

Ans:

```
#include <stdio.h>
int main() {
    int num, sum = 0;
    printf("enter a numbes: ");
    scanf("%d", &num);
    for(int i = 1; i<num; i++){
    if (num%i == 0) {
        sum = sum + i;
    }
}
if (sum == num)
    printf("%d is a perfect numbes\n", num);
else
printf("%d is not a perfect numbes\n", num);
return 0;
}
```

Output:

- Enter a number: 6
  6 is a perfect number.

- Enter a number: 10
  10 is not a perfect number.