

A strong number is a number whose factorial of its digits equals the number itself.

$$145$$

$$1! = 1$$

$$4! = 24$$

$$5! = 120$$

$$\text{Sum} = 1 + 24 + 120 = 145 \rightarrow \text{strong number.}$$

```
#include <stdio.h>
```

```
int main() {
```

```
int num, temp, digit;
```

```
long long fact, sum = 0;
```

```
printf("Enter a number:");
```

```
scanf("%d", &num);
```

```
temp = num;
```

```
while(temp > 0) {
```

```
    digit = temp % 10;
```

```
    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 number : 145

145 is a strong Number.

2) Perfect Number :- A perfect Number is a number is equal to the sum of its proper divisors.

6 \rightarrow Divisors : 1, 2, 3 $\rightarrow 1 + 2 + 3 = 6$

28 \rightarrow Divisors : 1, 2, 4, 7, 14 \rightarrow sum = 28.

```

#include <stdio.h>

```

```

int main() {

```

```

    int num, sum = 0;

```

```

    printf("Enter a number : ");

```

```

    scanf("%d", &num);

```

```

    for (int i = 1; i <= num / 2; i++) {

```

```

        if (num % i == 0) {

```

```

            sum += i;

```

```

        }

```

```

        if (sum == num)

```

```

            printf("%d is a perfect Number.\n", num);

```

```

        else

```

```

            printf("%d is NOT a perfect Number.\n", num);

```

```

            return 0;

```

```

        }

```

enter a number : 28. 28 is a perfect Number