

1) Strong number?

For example, 145 is a strong number because:  
 $1! + 4! + 5! = 1 + 24 + 120 = 145$

#include <stdio.h>

```
int factorial(int n){  
    int fact = 1;  
    for (int i=1; i<=n; i++){  
        fact *= i;  
    }  
    return fact;  
}
```

```
int isStrong (int num){  
    int sum = 0, temp = num;
```

```
    while (temp != 0) {  
        int digit = temp % 10;  
        sum += factorial(digit);  
        temp /= 10;  
    }
```

```
    return sum == num;
```

```
int main(){
```

```
    int num;
```

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

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

```
    if (isStrong(num))
```

```
        printf("%d is a strong number\n", num);
```

```
    else
```

```
        printf("%d is not a strong number\n", num);
```

```
    return 0;
```

```
}
```

## 2. Perfect number?

That is equal to the sum of it's proper positive divisions (divisions excluding the no it self) For example, 6 is a perfect number because its proper divisions are 1, 2, and 3 and their sum (1+2+3) is equal to 6.

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

```
int isPerfect(int num){  
    int sum=0;  
    for (int i=1; i<num; i++) {  
        if (num % i == 0) {  
            sum+=i;  
        }  
    }  
    return sum==num;  
}  
  
int main(){  
    int num;  
    printf("Enter a number:");  
    scanf("%d", &num);  
    if (isPerfect(num))  
        printf("\n%d is a perfect number\n", num);  
    else  
        printf("\n%d is not a perfect number\n", num);  
    return 0;  
}
```