

1) Strong number

for example 145 is strong number because
 $1! + 4! + 5! = 1 + 24 + 120 = 145$.

2) Perfect numbers.

that is equal to the sum of its proper

strong numbers:-

#include <stdio.h>

int factorial (int n){

 int fact = 1;

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

 fact *= i;

 return fact;

}

int main () {

 int num, temp, sum = 0;

 printf ("Enter a number: ");

 scanf ("%d", &num);

 temp = num;

 while (temp > 0) {

 int digit = temp % 10;

 sum += factorial (digit);

 temp /= 10;

}

 if (sum == num)

 printf ("%d is a Strong Number", num);

 else

 printf ("%d is not a Strong Number", num);

 return 0;

}

Perfect number:-

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

bool is_perfect(int n) {
    if (n <= 1) return false;
    int sum = 1;
    int r = (int)sqrt(n);
    for (int d = 2; d <= r; ++d) {
        if (n % d == 0) {
            sum += d;
            int other = n / d;
            if (other != d) sum += other;
        }
    }
    return sum == n;
}

int main() {
    int limit = 10000;
    printf("Perfect numbers up to %d: \n", limit);
    for (int i = 2; i <= limit; ++i) {
        if (is_perfect(i)) printf("%d\n", i);
    }
    return 0;
}
```