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

i.e. 145

$$1! = 1 \quad 4! = 24 \quad 5! = 120$$

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

```
#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;
}
```

Enter a number: 145

145 is a Strong Number.

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

28 → Divisors: 1, 2, 4, 7, 14 → 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;  
}
```

Output:

Enter a Number: 28

28 is a perfect Number.