

## 2) perfect numbers?

That is equal to the sum of its proper positive divisions (divisions excluding the no. itself). 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 main() {
```

```
    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 (is_perfect(num))
```

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

```
    else
```

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

```
    return 0;
```

```
}
```

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;
```