1) prime number

```
def is_prime(n):
    return n > 1 and all(n % i != 0 for i in range(2, int(n**0.5) + 1))
print(is_prime(7))
```

2) composite number

```
def is_composite(n):
    return n > 1 and not is_prime(n)
print(is_composite(8))
```

3) perfect number

```
def is_perfect(n):
    return n > 1 and sum(i for i in range(1, n) if n % i == 0) == n
print(is_perfect(6))
```

4)arom strong number

```
def is_armstrong(n):
    return n == sum(int(digit) ** len(str(n)) for digit in str(n))
print(is_armstrong(153))
```