In [1]:
```
#addition of 2 numbers
a=24
b=46
print(a+b)
```

```
70
```

In [2]:
```
#Maximum of 2 numbers
a=230
b=128
print(max(a,b))
```

```
230
```

In [10]:
```
#Simple Interest
Amount=20000
Year=15
Rate=2.5
SI=(Amount*Year*Rate)/100
print("The simple interest is",SI)
```

```
The simple interest is 7500.0
```

In [28]:
```
#Compound Interest
p= 12000
t= 2
r= 5.4
a=p*(1+(r/100))**t
ci=a-p
print(ci)
```

```
1330.9920000000002
```

In [26]:
```
#factorial
def fact(n):
    if n == 1:
        return 1
    else:
        return (n * fact(n-1))
```

In [27]:
```
fact(5)
```

Out[27]:
```
120
```

In [32]:
```
#Armstrong
num = int(input("Enter a number: "))

sum = 0

# find the sum of the cube of each digit
temp = num
while temp > 0:
    digit = temp % 10
    sum += digit ** 3
    temp //= 10

# display the result
if num == sum:
    print(num,"is an Armstrong number")
else:
    print(num,"is not an Armstrong number")
```

```
Enter a number: 407
407 is an Armstrong number
```

In [35]:
```python
#Area of Circle
def findArea(r):
    PI = 3.142
    return PI * (r*r);
print("Area is %.6f" % findArea(5));
```

```
Area is 78.550000
```

In [41]:
```python
#Prime numbers in an interval
def prime(x, y):
    prime_list = []
    for i in range(x, y):
        if i == 0 or i == 1:
            continue
        else:
            for j in range(2, int(i/2)+1):
                if i % j == 0:
                    break
            else:
                prime_list.append(i)
    return prime_list
```

In [44]:
```python
prime(5,15)
```

Out[44]:
```
[1, 5, 5, 7, 11, 13]
```

In [48]:
```python
#program to check whether a number is Prime or not
num = num = int(input("Enter a number: "))
if num > 1:
    for i in range(2, int(num/2)+1):
        if (num % i) == 0:
            print(num, "is not a prime number")
            break
    else:
        print(num, "is a prime number")
else:
    print(num, "is not a prime number")
```

```
Enter a number: 11
11 is a prime number
```