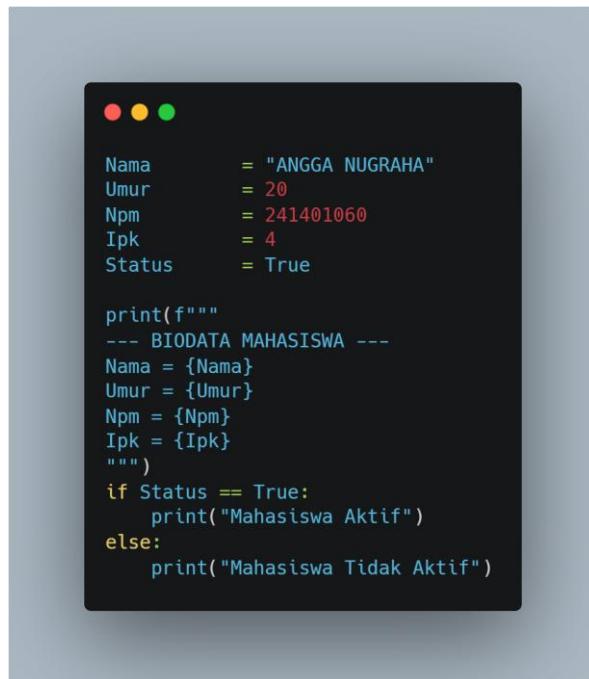


NAMA : ANGGA NUGRAHA  
NPM : 2414101060  
MATKUL : DASAR PEMROGRAMAN

## LATIHAN PRAKTIKUM PYTHON DAN C++

### 1. Biodata Mahasiswa

Input



```
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Nama      = "ANGGA NUGRAHA"
Umur     = 20
Npm       = 241401060
Ipk       = 4
Status    = True

print(f"""
--- BIODATA MAHASISWA ---
Nama = {Nama}
Umur = {Umur}
Npm = {Npm}
Ipk = {Ipk}
""")
if Status == True:
    print("Mahasiswa Aktif")
else:
    print("Mahasiswa Tidak Aktif")
```

Output



```
--- BIODATA MAHASISWA ---
Nama = ANGGA NUGRAHA
Umur = 20
Npm = 241401060
Ipk = 4

Mahasiswa Aktif
```

## Input



```
#include <iostream>
#include <string>
using namespace std;

int main(){
    string nama = "angga nugraha";
    int umur = 20;
    long long npm = 2414101060;
    int ipk = 4;
    int status = true;

    cout << "--- BIODATA MAHASISWA ---" << endl;
    cout << "NAMA = " << nama << endl;
    cout << "UMUR = " << umur << endl;
    cout << "NPM = " << npm << endl;
    cout << "IPK = " << ipk << endl;

    if(status == true){
        cout << "Mahasiswa aktif" << endl;
    }
    else{
        cout << "mahasiswa tidak aktif" << endl;
    }
}
```

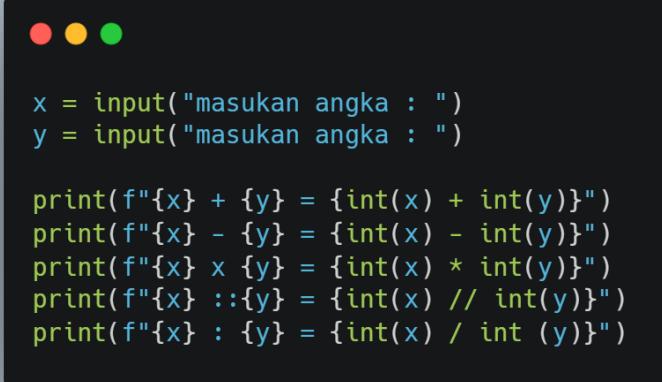
## Output



```
--- BIODATA MAHASISWA ---
NAMA = angga nugraha
UMUR = 20
NPM = 2414101060
IPK = 4
Mahasiswa aktif
```

## 2. Aritmatika

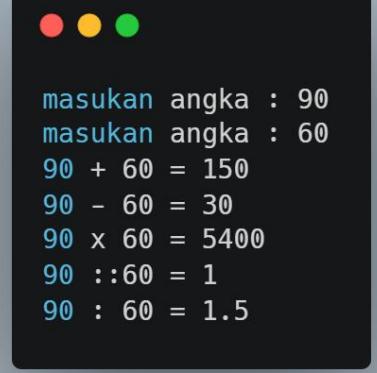
Input



```
x = input("masukan angka : ")
y = input("masukan angka : ")

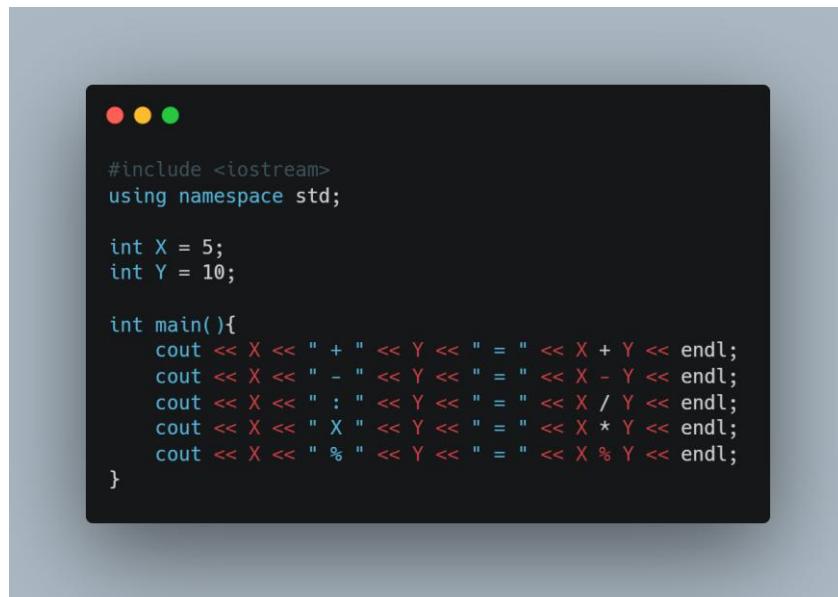
print(f"{x} + {y} = {int(x) + int(y)}")
print(f"{x} - {y} = {int(x) - int(y)}")
print(f"{x} x {y} = {int(x) * int(y)}")
print(f"{x} ::{y} = {int(x) // int(y)}")
print(f"{x} : {y} = {int(x) / int(y)}")
```

Output



```
masukan angka : 90
masukan angka : 60
90 + 60 = 150
90 - 60 = 30
90 x 60 = 5400
90 ::60 = 1
90 : 60 = 1.5
```

## Input

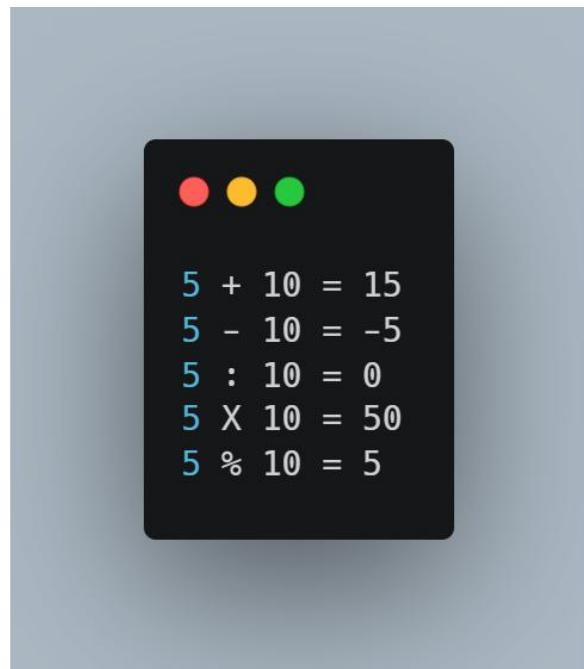


```
#include <iostream>
using namespace std;

int X = 5;
int Y = 10;

int main(){
    cout << X << " + " << Y << " = " << X + Y << endl;
    cout << X << " - " << Y << " = " << X - Y << endl;
    cout << X << " : " << Y << " = " << X / Y << endl;
    cout << X << " X " << Y << " = " << X * Y << endl;
    cout << X << " % " << Y << " = " << X % Y << endl;
}
```

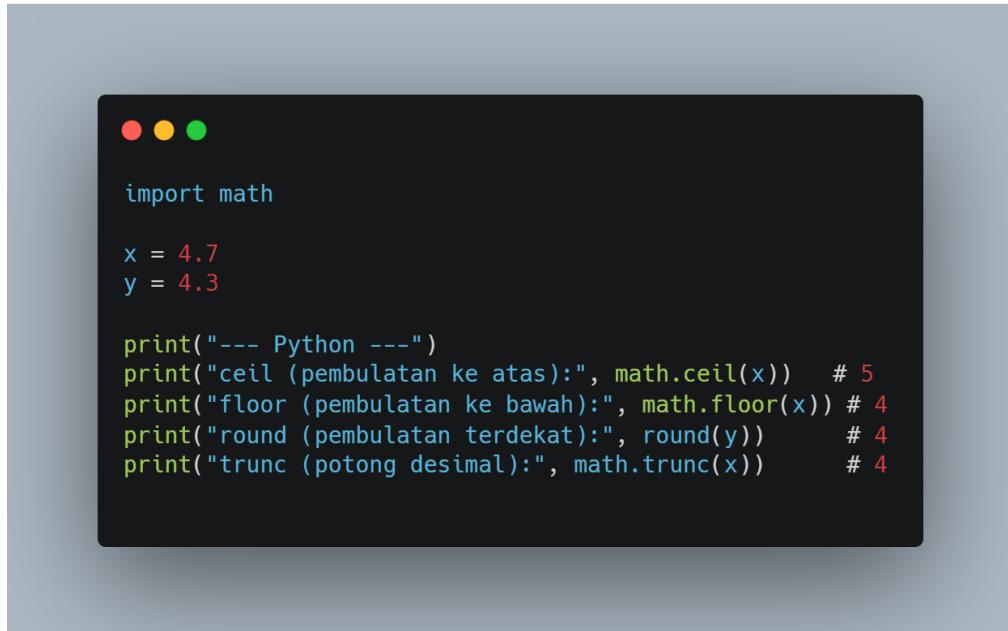
## Output



```
5 + 10 = 15
5 - 10 = -5
5 : 10 = 0
5 X 10 = 50
5 % 10 = 5
```

### 3. Menghitung Lingkaran

Input



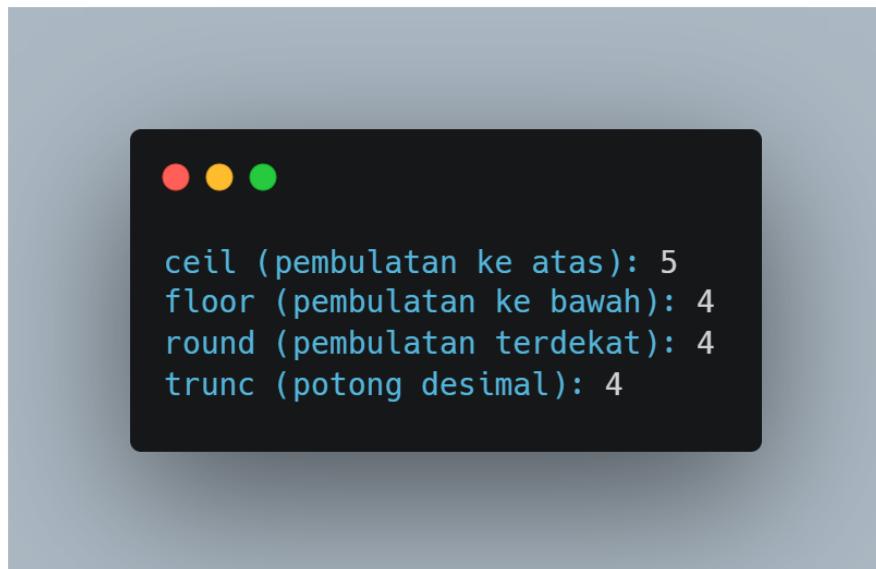
```
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import math

x = 4.7
y = 4.3

print("--- Python ---")
print("ceil (pembulatan ke atas):", math.ceil(x)) # 5
print("floor (pembulatan ke bawah):", math.floor(x)) # 4
print("round (pembulatan terdekat):", round(y)) # 4
print("trunc (potong desimal):", math.trunc(x)) # 4
```

Output



```
● ● ●

ceil (pembulatan ke atas): 5
floor (pembulatan ke bawah): 4
round (pembulatan terdekat): 4
trunc (potong desimal): 4
```

## Input



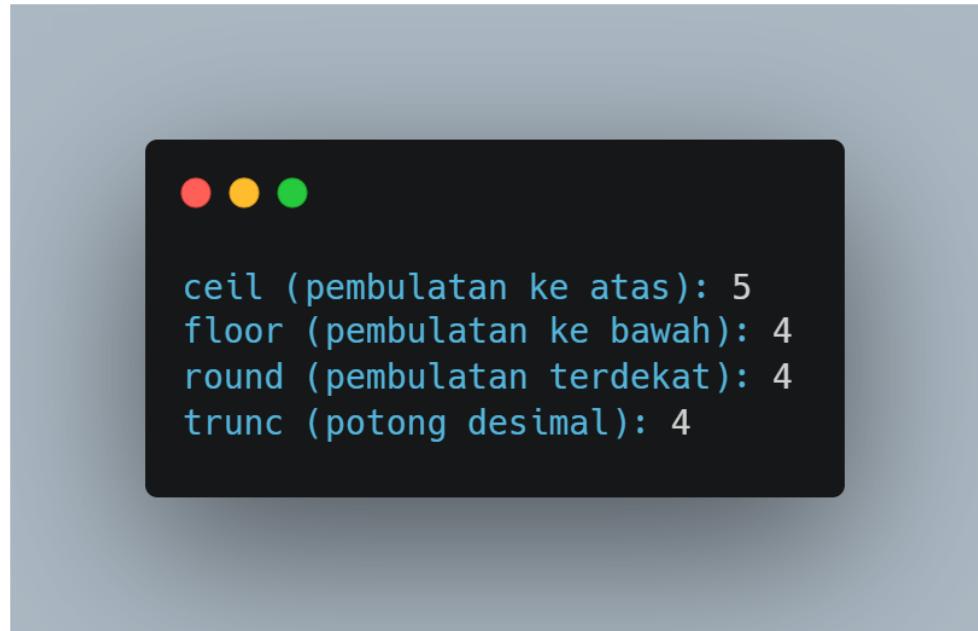
```
#include <iostream>
#include <cmath>
using namespace std;

int main() {
    double x = 4.7;
    double y = 4.3;

    cout << "--- C++ ---" << endl;
    cout << "ceil (pembulatan ke atas): " << ceil(x) << endl;      // 5
    cout << "floor (pembulatan ke bawah): " << floor(x) << endl; // 4
    cout << "round (pembulatan terdekat): " << round(y) << endl; // 4
    cout << "trunc (potong desimal): " << trunc(x) << endl;       // 4

    return 0;
}
```

## Output



```
ceil (pembulatan ke atas): 5
floor (pembulatan ke bawah): 4
round (pembulatan terdekat): 4
trunc (potong desimal): 4
```