

Nama : Yulia Indah Sulistyorini

Kelas : Prak BB

NIM : 15/384486/SV/08843

## Simpsons

### Source Code

```
#include <bits/stdc++.h>
using namespace std;

int n;
double xn, x0, h, jawab, genap = 0, ganjil = 0, awal, akhir;

double fx(double z){
    double e = 2.71828183;
    return pow(e, z);
}

double fungsi(double awal, double akhir, double genap, double ganjil, double h){
    double hasilFungsi = h/3 * (awal + (4*ganjil) + (2*genap) + akhir);
    return hasilFungsi;
}

int main(){
    cout << "Masukkan nilai X0 = ";
    cin >> x0;

    cout << "Masukkan nilai Xn = ";
    cin >> xn;

    cout << "Masukkan jumlah data = ";
    cin >> n;

    cout << endl;

    h = (xn - x0)/n;

    double x[n], f[n];
    for(int i=0; i<=n; i++){
        x[i] = h * i;
        f[i] = fx(x[i]);

        if(i == 0){
            awal = f[i];
            cout << i << "\t";
            cout << f[i] << endl;
        }
        else if(i == n){
            akhir = f[i];
            cout << i << "\t";
            cout << f[i] << endl;
        }
        else if(i % 2 == 0){
            genap = genap + f[i];
            cout << i << "\t";
            cout << genap << endl;
        }
    }
```

```

        else if(i % 2 != 0){
            ganjil = ganjil + f[i];
            cout << i << "\t";
            cout << ganjil << endl;
        }

    cout << endl;
    for(int i=0; i<=n; i++){
        jawab = fungsi(awal, akhir, genap, ganjil, h);
    }
    cout << "Hasil = " << jawab;
}

```

## SS Hasil

```

C:\Users\Yulia Indah S\Downloads\simpson sepertiga.exe
Masukkan nilai X0 = 0
Masukkan nilai Xn = 4
Masukkan jumlah data = 8

0      1
1      1.64872
2      2.71828
3      6.13041
4      10.1073
5      18.3129
6      30.1929
7      51.4284
8      54.5982

Hasil = 53.6162
-----
Process exited after 4.427 seconds with return value 0
Press any key to continue . . .

```