

Program 1

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

void pemisahan(string);

int main()
{
    string nim;
    cout<<"Masukkan NIM Lengkap mu : ";
    cin>>nim;
    pemisahan(nim);
    return 0;
}

void pemisahan(string nomor)
{
    char angkatan[2], niu[6], kode_fakultas[2], nif[5];
    size_t length = nomor.copy(angkatan,2,0);
    angkatan[length]='\0';
    cout<<"Angkatan      : " <<angkatan<<endl;
    length = nomor.copy(niu,6,3);
    niu[length]='\0';
    cout<<"NIU              : " <<niu<<endl;
    length = nomor.copy(kode_fakultas,2,10);
    kode_fakultas[length]='\0';
    cout<<"Kode Fakultas: " <<kode_fakultas<<endl;
    length = nomor.copy(nif,5,13);
    nif[length]='\0';
    cout<<"NIF              : " <<nif<<endl;
}
```

Output :

```
Masukkan NIM Lengkap mu : 21/481767/TK/53170
Angkatan      :21
NIU           :481767
Kode Fakultas:TK
NIF           :53170
```

Program 2

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

string nim, mk1, mk2, mk3, mk4, mk5;
int sks1, sks2, sks3, sks4, sks5;
float nilai1, nilai2, nilai3, nilai4, nilai5;
float totalnilai, totalsks;

void input()
{
    string temp;
    cout<<"Masukkan NIM : ";
    cin>>nim;
    getline(cin,temp);
    cout << " nama Mata Kuliah  1  : ";
    getline(cin,mk1);
    cout << " SKS Mata Kuliah    1  : ";
    cin >> sks1;
    cout << " Nilai Mata Kuliah 1   : ";
    cin >> nilai1;
    cout << " nama Mata Kuliah  2  : ";
    getline(cin,mk2);
    cout << " SKS Mata Kuliah    2  : ";
    cin >> sks2;
    cout << " Nilai Mata Kuliah 2   : ";
    cin >> nilai2;
    cout << " nama Mata Kuliah  3  : ";
    getline(cin,mk3);
    cout << " SKS Mata Kuliah    3  : ";
    cin >> sks3;
    cout << " Nilai Mata Kuliah 3   : ";
    cin >> nilai3;
    cout << " nama Mata Kuliah  4  : ";
    getline(cin,mk4);
    cout << " SKS Mata Kuliah    4  : ";
    cin >> sks4;
    cout << " Nilai Mata Kuliah 4   : ";
    cin >> nilai4;
    cout << " nama Mata Kuliah  5  : ";
    getline(cin,mk5);
    cout << " SKS Mata Kuliah    5  : ";
```

```

    cin >> sks5;
    cout << " Nilai Mata Kuliah 5   : ";
    cin >> nilai5;

    totalsks = sks1 + sks2 + sks3 + sks4 + sks5;
    totalnilai = nilai1 + nilai2 + nilai3 + nilai4 + nilai5;
}

float ipk()
{
    input();
    float ipk = totalnilai/totalsks;
    return ipk;
}

void cetak()
{
    float ipkcetak=ipk();
    cout<<"NIM   : "<<nim<<endl;
    cout<<"IPK   : "<<ipkcetak;
}

int main()
{
    cetak();
    return 0;
}

```

Ouput

```

Masukkan NIM : 3123123123
nama Mata Kuliah 1 : 123123
SKS Mata Kuliah 1 : 1231231
Nilai Mata Kuliah 1 : 12312312
nama Mata Kuliah 2 : SKS Mata Kuliah 2 : 123123
Nilai Mata Kuliah 2 : 123123
nama Mata Kuliah 3 : SKS Mata Kuliah 3 : 123123
Nilai Mata Kuliah 3 : 123123
nama Mata Kuliah 4 : SKS Mata Kuliah 4 : 123123
Nilai Mata Kuliah 4 : 123123
nama Mata Kuliah 5 : SKS Mata Kuliah 5 : 123123
Nilai Mata Kuliah 5 : 123123
NIM : 3123123123
IPK : 7.42857

```