Dot Product of Vectors

```cpp
// Dot Product Of Vectors Ifk
// Vector A = Ax i + Ay j + Az k
// Vector B = Bx i + By j + Bz k
// i, j and k are unit vectors

#include<iostream>

using namespace std;

int main()
{
    double A[3];
    double B[3];

    // Get A from user

    cout << "Enter coefficients of A vector : \n";

    for(int i = 0; i < 3; i++)
    {
        cin >> A[i];
    }

    // Get B from user

    cout << "Enter coefficients of B vector : \n";

    for(int i = 0; i < 3; i++)
    {
        cin >> B[i];
    }

    double dotProduct = 0;

    dotProduct = A[0]*B[0] + A[1]*B[1] + A[2]*B[2];

    cout << "Dot product A.B : " << dotProduct << endl;

    return 0;
}
```

Test Case 1

Input

```
4 10 9
7 8 -5
```

Output

```
Enter coefficients of A vector :
Enter coefficients of B vector :
Dot product A.B : 63
```

Test Case 2

Input

```
-8 1 2
-2 8 4
```

Output

```
Enter coefficients of A vector :
Enter coefficients of B vector :
Dot product A.B : 32
```