

Write a C++ program that finds and reports the squared length of the vector that is the result of the cross product of two, 3-dimensional vectors. Got that? If not, don't worry. Your teacher has provided a C++ function that works.

More specifically, your `main` function should first ask for and read in two different x values, two different y values, and two different z values. Your `main` function should then call the function named `SqrLenCrossProd()`, the body of which you should write using Microsoft's *in-line* assembly code. You may assume that the result of all multiplication, addition and subtraction operations will not exceed the limits of a 32-bit signed integer.

To help with the mathematical formulas, your professor has written a C++ version of the `SqrLenCrossProd()` function, as seen below. Your program should replace the statements printed in **bold** with in-line assembly instructions.

```
int SqrLenCrossProd(    int x1,  int y1,  int z1,  // Input vector 1
                       int x2,  int y2,  int z2)  // Input vector 2
{
    int x3, y3, z3;
    int answer;

    x3 = y1*z2 - y2*z1;
    y3 = x2*z1 - x1*z2;
    z3 = x1*y2 - x2*y1;

    answer = (x3*x3 + y3*y3 + z3*z3);

    return answer;
}
```

← Replace these statements with assembly code

Be sure to include comments for your assembly code using the C++ code as the comments.

In order to test your code you will need to write a `main()` function that calls the `SqrLenCrossProd()`. You're free to design the `main()` function anyway you like – as long as it passes 6 integers to the function and then displays the returned integer value. However, you will not submit your `main()` function. The professor will use his own version.

Sample Runs:

```
Enter vector #1: 1 2 3
Enter vector #2: 1 1 1
Answer = 6
```

```
Enter vector #1: 1 0 0
Enter vector #2: 0 1 0
Answer = 1
```

```
Enter vector #1: 10 10 10
Enter vector #2: -10 50 -15
Answer = 785000
```