**LAB EXERCISE 2**

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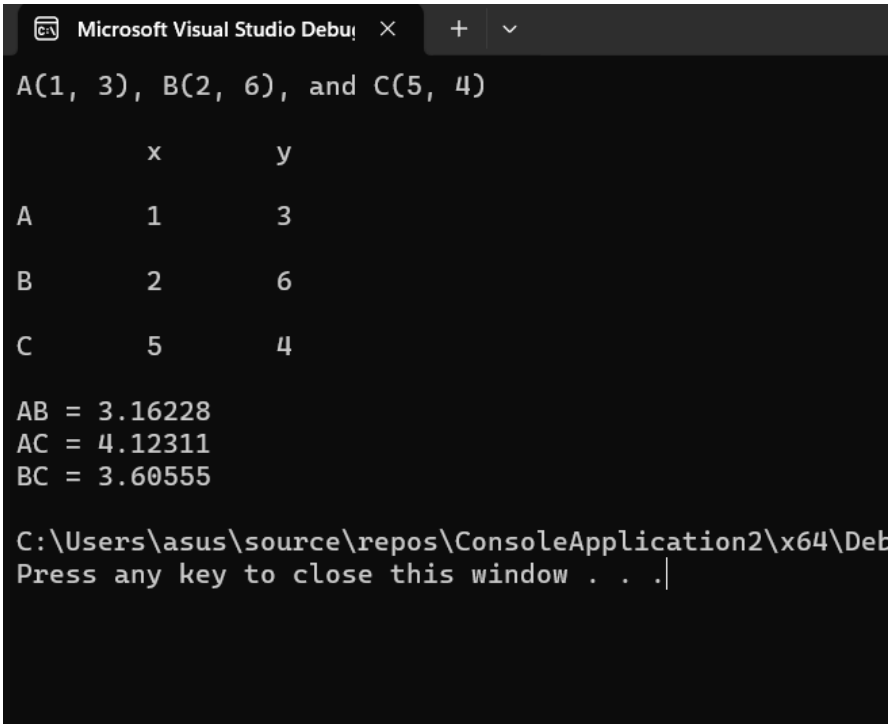
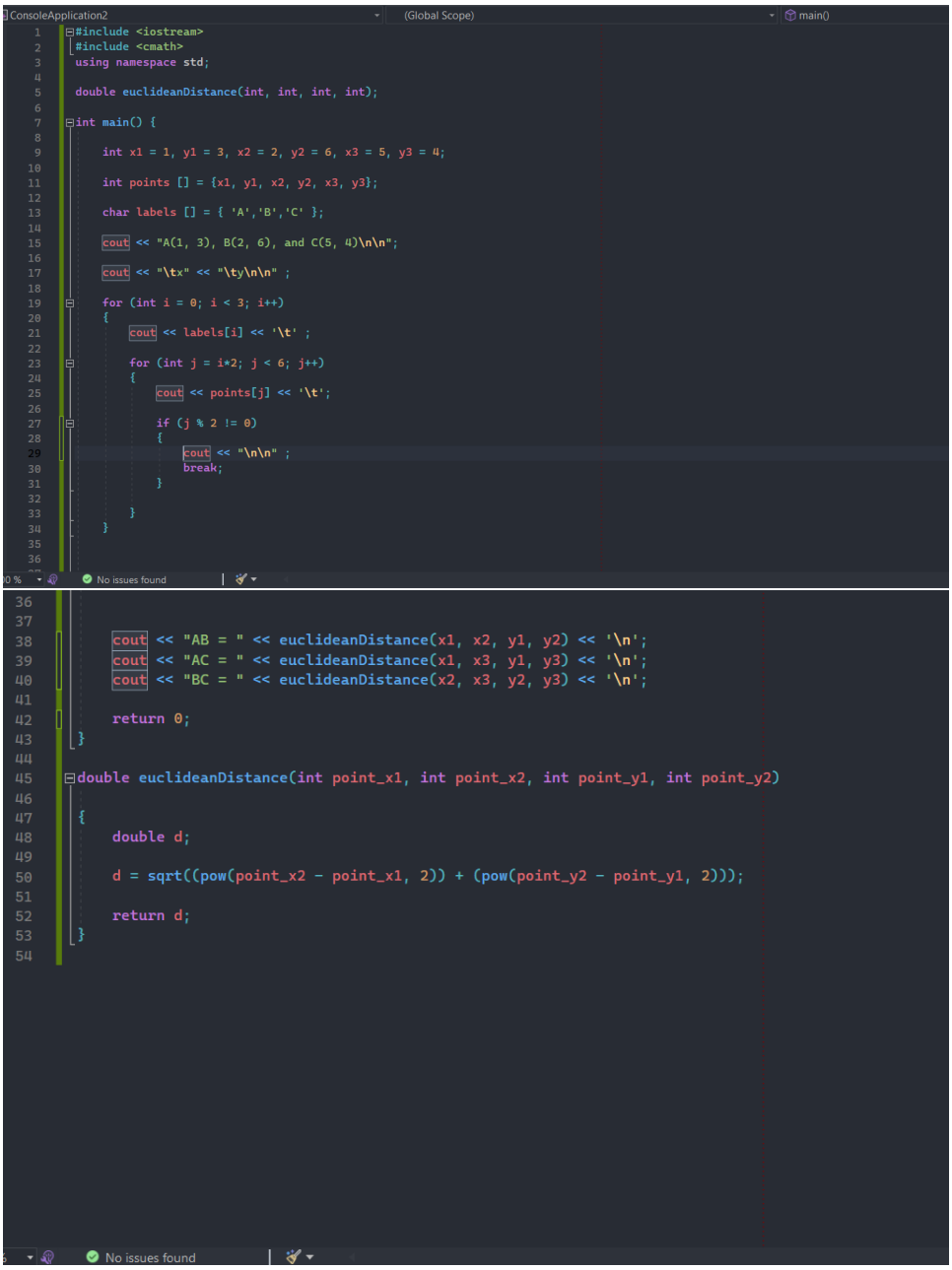
**Matric no. : A23CS0140**

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

double euclideanDistance(int, int, int, int);

int main() {

int x1 = 1, y1 = 3, x2 = 2, y2 = 6, x3 = 5, y3 = 4;

int points [] = {x1, y1, x2, y2, x3, y3};

char labels [] = { 'A','B','C' };

cout << "A(1, 3), B(2, 6), and C(5, 4)\n\n";

cout << "\tx" << "\ty\n\n" ;

for (int i = 0; i < 3; i++)
{
cout << labels[i] << '\t' ;

for (int j = i*2; j < 6; j++)
{
cout << points[j] << '\t';
```

```
if (j % 2 != 0) {
cout << "\n\n" ;
break;
}

}
}




cout << "AB = " << euclideanDistance(x1, x2, y1, y2) << '\n';
cout << "AC = " << euclideanDistance(x1, x3, y1, y3) << '\n';
cout << "BC = " << euclideanDistance(x2, x3, y2, y3) << '\n';

return 0;
}

double euclideanDistance(int point_x1, int point_x2, int point_y1, int
point_y2)

{
double d;

d = sqrt((pow(point_x2 - point_x1, 2)) + (pow(point_y2 - point_y1, 2)));

return d;
}
```

Output


Microsoft Visual Studio Debu
A(1, 3), B(2, 6), and C(5, 4)
x y
A 1 3
B 2 6
C 5 4
AB = 3.16228
AC = 4.12311
BC = 3.60555
C:\Users\asus\source\repos\ConsoleApplication2\x64\Deb
Press any key to close this window . . .



```
ConsoleApplication2                    (Global Scope)                    main()
#include <iostream>
#include <cmath>
using namespace std;

double euclideanDistance(int, int, int, int);

int main() {

    int x1 = 1, y1 = 3, x2 = 2, y2 = 6, x3 = 5, y3 = 4;

    int points [] = {x1, y1, x2, y2, x3, y3};

    char labels [] = { 'A','B','C' };

    cout << "A(1, 3), B(2, 6), and C(5, 4)\n\n";

    cout << "\tx" << "\ty\n\n" ;

    for (int i = 0; i < 3; i++)
    {
        cout << labels[i] << '\t' ;

        for (int j = i*2; j < 6; j++)
        {
            cout << points[j] << '\t';

            if (j % 2 != 0)
            {
                cout << "\n\n" ;
                break;
            }

        }
    }
100 %   No issues found
```

```
    cout << "AB = " << euclideanDistance(x1, x2, y1, y2) << '\n';
    cout << "AC = " << euclideanDistance(x1, x3, y1, y3) << '\n';
    cout << "BC = " << euclideanDistance(x2, x3, y2, y3) << '\n';

    return 0;
}

double euclideanDistance(int point_x1, int point_x2, int point_y1, int point_y2)

{
    double d;

    d = sqrt((pow(point_x2 - point_x1, 2)) + (pow(point_y2 - point_y1, 2)));

    return d;
}

No issues found
```