



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

FACULTY OF COMPUTING

SEMESTER 1 2023/2024

(SECJ1013) PROGRAMMING TECHNIQUE 1

SECTION 03

LAB EXERCISE 2

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|---------------------|------------------|
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```

//LAU YEE WEN A23CS0099
#include <iostream>
#include <iomanip>
#include <cmath>
#include <cstring>
using namespace std;

double distance (int,int,int,int); //prototype
double distance (int x1,int x2,int y1,int y2)
{
    return sqrt(pow(x2-x1,2)+ pow(y2-y1,2));
}

void displayOutput(int,int,int,int,int,int); //prototype
void displayOutput (int x1,int x2,int x3,int y1,int y2,int y3)
{
    char input1 [30] ="A(1,3), B(2,6), and ";
    char input2 [20] = "C(5,4)\n";
    cout << strcat(input1, input2)<< endl;

    cout << setw(6) << "x" << setw(5) << "y" <<endl;
    cout << "A" << setw(5) << x1 << setw(5) << y1 <<endl;
    cout << "B" << setw(5) << x2 << setw(5) << y2 <<endl;
    cout << "C" << setw(5) << x3 << setw(5) << y3 <<endl;
}

int main()
{
    int x1=1, x2=2, x3=5, y1=3, y2=6, y3=4;
    displayOutput(x1, x2, x3, y1, y2, y3);

    for (int i=0; i<3; i++)
    {
        switch(i)
        {
            case 0: cout<< "\nAB = " << distance (x1,x2,y1,y2) <<endl;
                    break;
            case 1: cout<< "AC = " << distance (x1,x3,y1,y3) <<endl;
                    break;
            default: case 2: cout<< "BC = " << distance (x2,x3,y2,y3) <<endl;
                    break;
        }
    }
    system ("pause");
    return 0; }

```

Sample output:

```
C:\MinGW\Chapter 4 Function  X + v
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
Press any key to continue . . .
```