

THE PROGRAMMING

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// Lab exercise 2

```
#include <iostream>
```

```
#include <cmath>
```

```
using namespace std;
```

```
int distance(int, int, int, int);
```

```
void listvalue(int = 1, int = 3);
```

```
int main(){
```

```
    int x1,y1,x2,y2,x3,y3;
```

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

```
    cout << " A(" << x1 << ", " << y1 << "), " ;
```

```
    cout << "B(" << x2 << ", " << y2 << "), and " ;
```

```
    cout << "C(" << x3 << ", " << y3 << ")\\n" << endl ;
```

```
    cout << "\\tx\\ty" << endl;
```

```
    listvalue();
```

```
    listvalue(x2, y2);
```

```
    listvalue(x3, y3);
```

```
    cout << "\\nAB = " ; distance(x2, x1, y2, y1);
```

```
    cout << "AC = " ;distance(x3, x1, y3, y1);
```

```
    cout << "BC = " ; distance(x3, x2, y3, y2);
```

```
    system("pause");
```

```
    return 0;
```

```
}
```

```
int distance(int a, int b, int c, int d){
```

```
    float result;
```

```
    result = sqrt(pow((a - b ), 2) + pow((c - d ), 2) );
```

```
    cout << result << endl;
```

```
}
```

```
void listvalue(int i, int j){
```

```
    if (i==1 && j==3)
```

```
        cout << " A\\t" << i << "\\t" << j << endl ;
```

```
    else if (i==2 && j==6)
```

```
        cout << " B\\t" << i << "\\t" << j << endl ;
```

```
    else
```

```
        cout << " C\\t" << i << "\\t" << j << endl ;
```

```
}
```

THE OUTPUT

```
C:\Users\hp\OneDrive\Docurr  ×  +  ∨  
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 . . .
```

