Computer Science I Lab 05E – DISTANCE FORMULALab Value - 100

Lab Goal :

This lab was designed to teach you how to use if statements.

Lab Description :

The Jones Trucking Company tracks the location of each of its trucks on a grid similar to an (x, y) plane. The home office is at location (0, 0). Read the coordinates of truck A and the coordinates of truck B and determine which is closer to the office.

Each collection contains 4 integers: the x-coordinate and then the y-coordinate of truck A followed by the x-coordinate and then the y-coordinate of truck B.

The distance formula for (x1, y1) and (x2, y2) is:

$$\sqrt{(x2 - x1)^2 + (y2 - y1)^2}$$

Sample Data :

```
3 -2 -5 -3
5 5 1 2
9 9 8 8
8 8 9 9
```

Files Needed ::

```
Distance.java
Lab05e.java
```

Sample Output :

```
Enter X1 :: 3
Enter Y1 :: -2
Enter X2 :: -5
Enter Y2 :: -3

A is closer to (0,0).



Enter X1 :: 5
Enter Y1 :: 5
Enter X2 :: 1
Enter Y2 :: 2

B is closer to (0,0).



Enter X1 :: 9
Enter Y1 :: 9
Enter X2 :: 8
Enter Y2 :: 8

B is closer to (0,0).



Enter X1 :: 8
Enter Y1 :: 8
Enter X2 :: 9
Enter Y2 :: 9

A is closer to (0,0).
```

Additional Test Data

```
0
6
1
2
B IS CLOSER


-7
8
4
-1
B IS CLOSER
```

```
//EXAMPLE IF CODE

int x = 90;

if(x>50)
{
   out.println("fun");
}
if(x<50)
{
   out.println("not fun");
}
```