COP 2200 Introduction to C
Homework 2

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In this assignment, you are going to turn in **a single** cpp file. Your goal is to (1) design a function that calculates distances between two points, and (2) run the function to the following scenario.

We break down things into the following tasks:

- **Task 1:** write a function that takes inputs 4 integers x_1, y_1, x_2, y_2 and returns a double. The function calculates the distance between the points (x_1, y_1) and (x_2, y_2).

  In the following, you are going to write codes in the main function. You need to produce the following results.

- **Task 2:** in the first line, print "Enter two integers as the coordinates for the first point", and then let the user input two integers.

- **Task 3:** in the next line, print "Enter two integers as the coordinates for the second point", and then let the user input two integers.

- **Task 4:** in the next line, 'Enter two integers as the coordinates for the third point", and then let the user input two integers.

- **Task 5:** in the next line, print "The distance between Points 1 and 2 is: ", followed by the distance (double).

- **Task 6:** in the next line, print "The distance between Points 1 and 3 is: ", followed by the distance (double).

- **Task 7:** in the next line, print "The distance between Points 2 and 3 is: ", followed by the distance (double).

To achieve the tasks 5,6,7, you must call the function in Task 1. Also, pay attention to the input/output data types specified in Task 1.