## distance

The distance between two points $(x_1, y_1)$ and $(x_2, y_2)$ is given by

$$\text{distance} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$

Write a C program that reads the (x, y) coordinates for two points, computes the distance between the two points and prints the distance to the display. The program should first read in the number of times for computing the distance. No need to check errors on user input.

A sample program template is given below:

```c
#include <stdio.h>
#include <math.h>
int main()
{
  /* Write your code here */
  return 0;
}
```

Sample input and output sessions are given below:

(1) Test Case 1:
    Enter the number of times:
    1
    Enter first point x1 y1:
    1 5
    Enter second point x2 y2:
    2 7
    The distance is 2.24

(2) Test Case 2:
    Enter the number of times:
    2
    Enter first point x1 y1:
    1 1
    Enter second point x2 y2:
    5 5
    The distance is 5.66
    Enter first point x1 y1:
    1 5
    Enter second point x2 y2:
    2 7
    The distance is 2.24