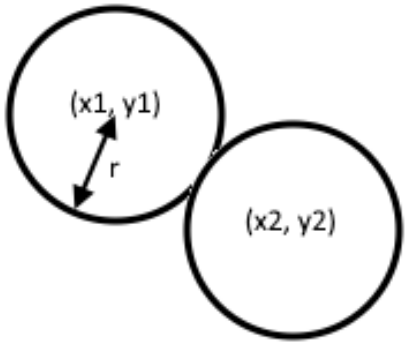
UNIR - Universal Radius

no tags

Given two points **A** and **B** that are the center of two circle. The two circle are equal is size and tangent externally. you have to find the radius of the circles. See the picture below:



Input

Input starts with an integer **T (≤ 250)**, denoting the number of test cases. Each case contain four integers $\mathbf{x_1}$, $\mathbf{y_1}$, $\mathbf{x_2}$, $\mathbf{y_2}$ ($\mathbf{-10^6} \leq \mathbf{x_1}, \mathbf{y_1}, \mathbf{x_2}, \mathbf{y_2} \leq \mathbf{10^6}$) where $\mathbf{x_1}$ and $\mathbf{y_1}$ are coordinates of the first point and $\mathbf{x_2}$ and $\mathbf{y_2}$ are coordinates of the second point. It is guaranteed that the given points are distinct.

Output

For each case, print the answer to the problem which describe above. Answer round with 6 decimal places.

Example

```
Input:
2
0 1 5 10
-2 -1 -4 -9

Output:
5.147815
4.123106
```

Problem setter: Shipu Ahamed, Dept. of CSE *Bangladesh University of Business and Technology (BUBT)*

Submit solution! (/submit/UNIR/)

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nadstratosfer (/users/nadstratosfer): 2018-08-20 08:09:29
No floats in input, my code was designed to crash if it was otherwise but got AC.

wisfaq (/users/wisfaq): 2014-10-18 19:11:45
Please add that the answer must be rounded to 6 places after the decimal point.
shipu -> thanks, now it's fixed @wisfaq

Last edit: 2014-09-17 17:35:58

ivar.raknahs (/users/ravi_shank): 2014-10-18 19:11:45
Wrong input declaration . Inputs are in float.
Correct it.
Costed me 2 WA.

@Shipu -> there are no float inputs in dataset. see Input Section in problem description...

Last edit: 2014-10-18 19:01:29

mehrab alam (/users/mehrab): 2014-10-18 19:11:45
@Shipu Ahamed correct input statement inputs are in floats

@Shipu -> there are no float inputs in dataset. see Input Section in problem description...

Last edit: 2014-10-18 19:03:06

Wonderwice Margera (/users/wwmargera): 2014-10-18 19:11:45
For fun, we should change it to a challenge problem with score = number of characters in answer.

Last edit: 2014-09-15 11:32:42

Ayush Agarwal (/users/sati8335): 2014-10-18 19:11:45
In the problem it's mentioned the coordinates of the two centers will integers, but in the test cases, there are non integral coordinates too!!!

Last edit: 2014-09-15 10:56:17

Raghav Aggiwal (/users/raghav123): 2014-10-18 19:11:45
Piece of cake !!

Shipu Ahamed (/users/shipu_a): 2014-10-18 19:11:45
@Ayush Agarwal : Find out by yourself...

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Submit solution! (/submit/UNIR/)

Added by:	Shipu Ahamed (/users/shipu_a)
Date:	2014-09-14
Time limit:	1s
Source limit:	50000B
Memory limit:	1536MB
Cluster:	Cube (Intel G860) (/clusters/)
Languages:	All except: ASM64

Vote requirements

- ✔ be spoj user for at least 5 days
- ✖ solved 0 from 15 needed problems
- ✔ solve this problem

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