



05 : 21 : 29 : 34
DAY HRS MIN SEC

September Circuits

LIVE

Sep 16, 2016, 09:00 PM IST - Sep 24, 2016, 09:00 PM IST

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LIVE EVENTS

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Rescuer

Max. Marks: 100

Today is a very hot day for rescuer Bob. And right now he's just noticed new sinking drunk man in the sea! Let's assume that resort is Euclidean plane and the shoreline is $y=0$ line. The sea is everything above $y=0$. And respectively everything below $y=0$ is a beach. The Bob's speed on the land equals to v_1 , and his speed while swimming equals to v_2 .

Now Bob is at point (x_1, y_1) and the sinking man is at point (x_2, y_2) . What is the minimum time Bob need to get to the poor fellow and rescue his life?

In one test file you have to handle T test cases.

Constraints

$T \leq 100$

$-10^9 \leq x_1, x_2, y_1, y_2, v_1, v_2 \leq 10^9$

$y_1 < 0$

$y_2, v_1, v_2 > 0$

Input

The first line contains one integer T denoting the number of test cases. The following T lines describe test cases.

The first and the only line of each test case contains 6 space-separated integers: $x_1, y_1, x_2, y_2, v_1, v_2$

Output

Output the minimum required time with **exactly** 5 digits after decimal point.

SAMPLE INPUT



```
1
3 -20 3 25 40 5
```

SAMPLE OUTPUT



5.50000

3

LIVE EVENTS

Time Limit: 1.0 sec(s) for each input file.**Memory Limit:** 256 MB**Source Limit:** 1024 KB**Marking Scheme:** Marks are awarded if any testcase passes.**Allowed Languages:** C, CPP, CLOJURE, CSHARP, D, ERLANG, FSHARP, GO, GROOVY, HASKELL, JAVA, JAVA8, JAVASCRIPT, JAVASCRIPT_NODE, LISP, LISP_SBCL, LUA, OBJECTIVEC, OCAML, OCTAVE, PASCAL, PERL, PHP, PYTHON, PYTHON3, R, RACKET, RUBY, RUST, SCALA, SWIFT, VB

CODE EDITOR

☺ Our compiler wanted to be here!

But the mobile is too cramped for it to load. It says it would be more comfortable on the web.

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