Two trains P90619_en

Consider two infinite horizontal train rails, so close that we can regard them to be coincident. On the first rail there is a train of length ℓ_1. To its right, on the second rail and d distance units apart, there is a train of length ℓ_2. This simple picture corresponds to all the cases of the sample input, with $\ell_1 = 10$, $\ell_2 = 20$ and $d = 30$:

The first train has velocity v_1 and constant acceleration a_1. The second train has velocity v_2 and constant acceleration a_2. Positive means to the right, negative means to the left. For how many time units will the trains overlap, at least partially?

Input

Input consists of several cases, with only integer numbers, each one with ℓ_1, ℓ_2, d, v_1, a_1, v_2 and a_2. Assume that ℓ_1, ℓ_2 and d are strictly positive. No number is larger than 10^4 in absolute value.

Output

For every case, print with four digits after the decimal point the amount of time that both trains will overlap. The input cases have no precision issues.

Sample input 1

```
10 20 30 10 0 20 0
10 20 30 10 0 -10 5
10 20 30 10 0 -10 1
10 20 30 10 0 -10 -10
```

Sample output 1

```
0.0000
4.0000
3.4118
0.8377
```

Problem information

Author: Salvador Roura

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