Problem 7: Solve It

(Medium)

(Adapted from UVa 10341)

Solve the equation:

$$pe^{-x} - q\sin x + r\cos x - s\tan x - tx^2 + u = 0$$

where $0 \leq x \leq 1$.

Input Format

The first line of input contains T, the number of testcases.

The following T lines contain 6 integers in a single line, p, q, r, s, t and u, separated by spaces.

Constraints

- $1 \leq T \leq 100$
- $0 \leq p, q, r, s, t \leq 20$
- $-100 \leq u \leq 100$

The time limit for this problem is 2 seconds.

Output Format

For each test case, there should be a line containing the value of x, correct up to 4 decimal places, or the string `No solution` if there is no solution in the range $0 \leq x \leq 1$, whichever is applicable. **Pad the solution to 4 decimal places using zeros** if the solution is less than 4 decimal places.

Sample Input

```
4
0 0 0 0 2 1
1 0 0 0 1 2
1 1 1 1 1 1
1 0 0 0 0 -1
```

Sample Output

```
0.7071
No solution
```

0.7554
0.0000