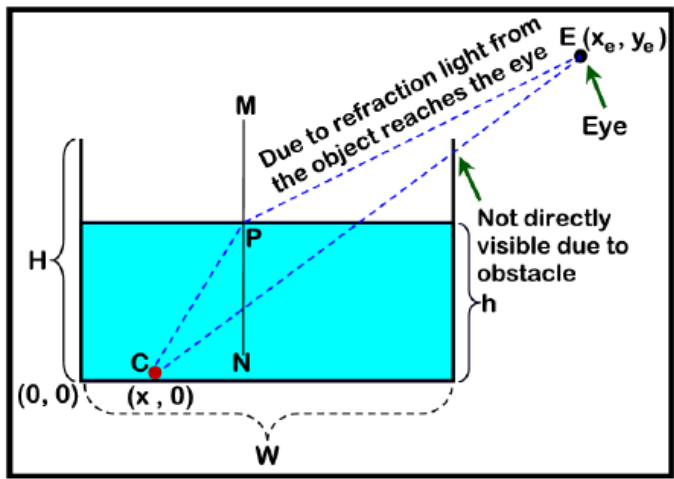We all know the common test of refraction of light with the visibility of a coin kept at the bottom of a bowl or cup. From a certain position the coin is not visible, but if we pour water into the bowl or cup it...

The empty bowl and the coin is not visible

The bowl is filled with water and a part of the coin is visible

In this problem we will discuss A 2D version of this problem and it is shown in the figure on the left. We have a bowl made of opaque (not able to be seen through or not transparent) material. The coordinate of the lower left corner of the bowl is $(0,0)$. At the bottom we have a point object at C whose coordinate is $(x,0)$. The width of the bowl is W and the height is H. The refractive index of the transparent liquid (with respect to air) is μ (In the figure on the left

$$\mu = \frac{\sin \angle MPE}{\sin \angle CPN}$$

and the location of the eye is $E(x_e, y_e)$. Now if the bowl is empty then the object may or may not be visible (at the shown figure it is not visible) from the location of the eye, but as the bowl is filled with liquid so due to refraction, the light reflected from the object can reach the eye and it becomes visible. Now given the width and height of the bowl, abscissa of the object (ordinate is always zero), coordinate of the eye and refractive index μ of the liquid, you will have to find the minimum possible depth of the liquid (h) for which the object will be visible.

Input

First line of the input file contains an integer T ($0 < T < 100001$) which denotes the number of test cases. Each of the next T lines contains the input for one test case.

Each line contains 5 integers W ($100 \leq W \leq 1000$), H ($100 \leq H \leq 1000$), x ($1 \leq x < W$), x_e ($W < x_e \leq 2000$), y_e ($H < y_e \leq 2000$) and a floating-point number μ ($1.1000 \leq \mu \leq 5.0000$). The meaning of these symbols are given in the problem statement.

Output

For each test case produce one line of output. This line contains a floating-point number h_{min}, which indicates the minimum depth of the liquid for which the object will be visible from the location of the eye. This number should always have four digits after the decimal point. If the object is not visible under any circumstances print the line 'Impossible' instead. You can assume that inputs will be such so that small precision errors (absolute error of $\pm 3 * 10^{-6}$ will not create any difference in the output. Look at the output for sample input for details.

Sample Input

```
2
100 150 30 200 200 3.0000
100 150 30 200 200 2.0000
```

Sample Output

```
136.2840
Impossible
```