## horizontal line

**Kill the Birds**

# **Problem Statements :**

Singh got a new video game and he was playing a shooting game. There are two birds to kill in this shooting game. Hitting first bird will provide him X points and hitting second bird will provide him Y points. And there are 0 points if he misses the bird.

Singh has N coins and it takes 1 coin to try a shoot. He needs to score a minimum of W points to win the game.

At each turn, he has two choices. The choices include:-

* Hitting first bird with probability P1 percent. However, he might miss it with probability (1-P1) percentage.
* Hitting second bird with probability P2 percent. However, he might miss it with probability (1-P2) percentage.

Help Singh in finding the maximal expected probability (as a percentage b/w 0 and 100) of winning the shooting game

# **Input Format :**

First line contains the number of test cases T.

Each test case consists of six space separated integers of the form X Y N W P1 P2 as described in the statement.

# **Constraints :**

1 ≤ T ≤ 10   
1 ≤ X,Y ≤ 10   
1 ≤ N,W ≤ 10^3  
0 ≤ P1,P2 ≤ 100

# **Output Format :**

For each test case, print the result as described above in a separate line.

Note: Choosing to hit any apple is entirely his choice. Both are independent events meaning P1 + P2 may/may not exceed 100.

Output must contain 6 digits after decimal.

# **Sample Input :**

1  
2 3 2 5 50 25

**Sample Output :**

12.500000

**Explanation :**

Singh is getting 2 points from shooting first bird and 3 points from shooting second Apple.

Singh had 2 chances to shoot and he need to score atleast 5 points so anyhow he need to shoot bird 1 in one shoot and bird 2 in another shoot , if he wants to win.

The maximum probability of winning is 0.5 \* 0.25 = 0.125 = 12.5%

**Time Limit :**

None