Q1.

Input Format

The input begin with an integer n on a line, which means that there are n test cases.
And the first character of each following row is the command.

    +   : add two matrices.
    *   : Multiply two matrices.
    p   : print the matrix.
    d   : print the determinant of the matrix.

The size of each matrix is 2x2.
Each matrix contains four integers.
Ex. [a b
       c d]
which a , b, c ,d are four integers.

Constraints

Use **class** and **switch** to implement.

Output Format

You must output the result after doing the calculation.
If the matrix is [3 6
                   -1 2] ,
then you have to print [3,6,-1,2].

Sample Input

7
p 0 0 0 0
p 0 1 2 3
p 5 6 7 8
+ 0 -5 6 -9 8 7 -1 -1
* 1 8 9 -1 5 1 -1 0
d 4 5 6 7
d 9 8 7 6

Sample Output

[0 , 0 , 0 , 0]
[0 , 1 , 2 , 3]
[5 , 6 , 7 , 8]
[8 , 2 , 5 , -10]
[-3 , 1 , 46 , 9]
-2
-2