

Problem MANYDISH: How many dishes?

Mr. Burns, owner of an atomic plant, is looking to hire new programmers. As he is looking for the best of the best, he wants to organize a programming contest just like the ACM contests. Having never organized such a thing, he looks at how SWERCs were organized. Homer - the employee with the greatest food-consumption - was issued to organize the dinner on Saturday evening. He planned everything well: The contestants will go on a boat-trip with many three-eyed sights. Learning from past SWERCs he knows that the amount of available dishes on the boat can become a problem. Luckily, he finds out that Professor Frink is building an on-demand-dishes-production-machine. This machine is able to produce one plate, every time somebody needs one, but in order to reduce waste it cannot produce one, when it's not needed. As Professor Frink still hasn't finished the invention, Homer will have to use an unfinished version of the machine, which has a maximum rate built into it at which it can produce dishes.

From SWERC-statistics Homer knows, how many plates are in use at what time. From these statistics, he now needs to deduce the maximum rate at which his machine will have to produce new dishes.

Input

Those funny SWERC-guys gave Homer polynomials of degree 3 describing the amount of dishes in use at time t (measured in contaminated SNPP time units). Homer ignores that dishes might be returned at the same time as there are new dishes needed. If the value of the polynomial is ascending, new dishes have to be produced at the same rate at which the polynomial is ascending; if it is descending or staying at a certain value, no new dishes need to be produced. The input starts with a line containing C , the number of testcases ($1 \leq C \leq 100$). A testcase consists of 4 integers a ($-2^{28} < a < 0$), b , c and d ($-2^{28} < b, c, d < 2^{28}$) describing a polynomial of the form $at^3 + bt^2 + ct + d$. Each testcase is given on a single line containing whitespace-separated a, b, c, d . The input may contain multiple testcases. End of input is indicated by EOF.

Output

Your task is now to output the time t at which the maximum rate occurs in the statistics. For each testcase, output the time as a reduced fraction of the form q/d (q not necessarily smaller than d , but q relatively prime to d and $d > 0$) on one line. If it happens at time 0 always print $0/1$. Note that t (measured in contaminated SNPP time units) can also have negative values. Homer doesn't know at what time the dinner starts or ends, so it's just fine to find the maximum rate ever appearing. The rate and the number of dishes in use at time t are both positive values.

Sample Input 1

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3
-1 0 1 1
-1 1 1 1
-1 -1 -1 -1
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Sample Output 1

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0/1
1/3
-1/3
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