Root finding is the same as DBMS if there are no duplicates in the last number of the last column. Otherwise, this is what I propose as a simplified version of finding the MMS root. Let's say we have this matrix:

0	1	2	3
	1	2	3
		1	2
			1
			1

Since the last 1 of the last column is a duplicate of the previous one before it, it is cancelled out.

0	1	2	3
	1	2	3
		1	2
			1
			1

()(1,1)(2,2,1)(3,3,2,1,1) has the same root as ()(1,1)(2,2,1)(3,3,2,1).
If there are 2 or more doubles right next to each other, then cancel out all of the duplicates such that they are right next to each other.

2	3	4	5
2	3	4	5
1	2	3	4
	1	2	3
	1	2	3
		1	2
		1	2
			1
			1

…(2,2,1)(3,3,2,1,1)(4,4,3,2,2,1,1)(5,5,4,3,3,2,2,1,1) has the same root as …(2,2,1)(3,3,2,1,1)(4,4,3,2,2,1,1)(5,5,4,3,2,1).

0	1	2	3

	1	2	3
	1	1	2
			1
			1
			1

()(1,1,1)(2,2,1)(3,3,2,1,1,1) has the same root as ()(1,1,1)(2,2,1)(3,3,2,1).

1	2	3	4
	1	2	3
	1	2	3
		1	2
		1	2
		1	2
			1
			1
			1
			1

…(1)(2,1,1)(3,2,2,1,1,1)(4,3,3,2,2,2,1,1,1,1) has the same root as
…(1)(2,1,1)(3,2,2,1,1,1)(4,3,2,1).