

CoCoA-5 - Bug #1215

RationalSolve: gives "Error: must be non-zero"

07 Aug 2018 18:08 - John Abbott

Status:	Closed	Start date:	07 Aug 2018
Priority:	Normal	Due date:	
Assignee:	John Abbott	% Done:	100%
Category:	bug	Estimated time:	0.49 hour
Target version:	CoCoA-5.4.0	Spent time:	0.45 hour
Description			
I tried running the example in the first comment of issue #723 . The call to RationalSolve reported Error: value must be non-zero			
Investigate and fix.			
Related issues:			
Related to CoCoA-5 - Feature #723: Referring to indets with multiple indices ...		New	02 Jun 2015
Related to CoCoA-5 - Bug #1216: RationalSolve: gives wrong answer		Closed	07 Aug 2018

History

#1 - 07 Aug 2018 18:10 - John Abbott

The first cause of the bug is that the code attempts to factorize the zero polynomial.
Perhaps in a finite field, this special case should be detected and simply return all elements of the field?

#2 - 07 Aug 2018 18:10 - John Abbott

- Related to Feature #723: Referring to indets with multiple indices from a polyring added

#3 - 05 Apr 2019 20:17 - John Abbott

- Related to Bug #1216: RationalSolve: gives wrong answer added

#4 - 01 Oct 2019 14:13 - John Abbott

- Target version changed from CoCoA-5.3.0 to CoCoA-5.4.0

#5 - 18 Feb 2021 22:00 - John Abbott

- Status changed from New to Feedback

- Assignee set to John Abbott

- % Done changed from 0 to 90

Is this issue a **duplicate** of issue [#724](#)?

I think so. Anyway, I tried the example mentioned in the description, and no error is produced.

We can probably close this (since it is effectively a duplicate). But I'll put it into feedback for a short while.

#6 - 24 Sep 2021 22:35 - John Abbott

- Status changed from Feedback to Closed

- % Done changed from 90 to 100

- Estimated time set to 0.49 h

Closing this issue because there is no clear indication of what to test.

I suspect the new design of RationalSolve and RationalSolveHomog has eliminated whatever the problem was.