# CoCoA-5 - Bug #1610

## IsInRadical: some more little bugs

27 Sep 2021 09:52 - Anna Maria Bigatti

Status: Closed Start date: 27 Sep 2021

Priority: High Due date:

Assignee: Anna Maria Bigatti % Done: 100%

Category:bugEstimated time:0.00 hourTarget version:CoCoA-5.4.0Spent time:2.60 hours

# **Description**

I met some more bugs for extreme cases.

Usually, after isolating them, the solution is trivial.

List below.

## Related issues:

Related to CoCoALib - Bug #1565: IsInRadical: gives "weird" error	Closed	19 Jan 2021
Related to CoCoALib - Slug #1569: IsInRadical too slow (test-RadicalMembership)	Closed	22 Jan 2021
Related to CoCoALib - Slug #1136: IsInRadical: sometimes a bit slow	Closed	06 Dec 2017
Related to CoCoA-5 - Bug #1032: IsInRadical: fragile code	Closed	17 Mar 2017
Related to CoCoALib - Feature #1030: IsInRadical: case of homog ideal	Closed	14 Mar 2017

### **History**

## #1 - 27 Sep 2021 09:52 - Anna Maria Bigatti

- Related to Bug #1565: IsInRadical: gives "weird" error added

## #2 - 27 Sep 2021 09:52 - Anna Maria Bigatti

- Related to Slug #1569: IsInRadical too slow (test-RadicalMembership) added

## #3 - 27 Sep 2021 09:53 - Anna Maria Bigatti

- Related to Slug #1136: IsInRadical: sometimes a bit slow added

#### #4 - 27 Sep 2021 09:53 - Anna Maria Bigatti

- Related to Bug #1032: IsInRadical: fragile code added

## #5 - 27 Sep 2021 09:55 - Anna Maria Bigatti

Error if GradingDim is 0 (lex, elim, ...) for call to IsHomog. Now fixed.

## #6 - 27 Sep 2021 09:57 - Anna Maria Bigatti

Error for

```
SetVerbosityLevel(90);
use P ::= QQ[a,b, x,y]; X := [x,y];
I:=ideal(a*x, b*x, a*y);
CGS_I := CGSRecNabe(I,X, ElimXLex(2,2));
```

This makes sense only to me until I manage to isolate where the problem really is. Gives Process cocoa5 segmentation fault: 11

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## #7 - 28 Sep 2021 16:48 - Anna Maria Bigatti

This seems to be the problem

IsInRadical(one(CurrentRing), ideal(CurrentRing,[]));

I'm investigating.

## #8 - 28 Sep 2021 17:48 - Anna Maria Bigatti

- Status changed from In Progress to Feedback
- % Done changed from 10 to 90

fixed. I didn't encounter other new bugs. Updated test-exbugs

# #9 - 10 Nov 2021 19:32 - John Abbott

Anna: can you close this issue?

## #10 - 12 Nov 2021 09:48 - Anna Maria Bigatti

- Status changed from Feedback to Closed
- % Done changed from 90 to 100

No new bugs have surfaced. Closing this issue.

## #11 - 15 Feb 2024 16:13 - Anna Maria Bigatti

- Related to Feature #1030: IsInRadical: case of homog ideal added

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