CoCoALib - Feature #958

New function: multiplicity and dim

27 Oct 2016 16:34 - Anna Maria Bigatti

Status:	Resolved	**Start date:**	27 Oct 2016
Priority:	Normal	**Due date:**	
Assignee:	Anna Maria Bigatti	**% Done:**	80%
Category:	New Function	**Estimated time:**	3.00 hours
Target version:	CoCoALib-0.99880	**Spent time:**	2.50 hours

Description

multiplicity and dim are implemented in cocoa-5.
Bring them to cocoalib.

The names should be **MultiplicityQuot(I)** and **DimQuot(I)** [for **multiplicity(P/I)** and **dim(P/I)** respectively]

History

#1 - 27 Oct 2016 16:36 - Anna Maria Bigatti

- % Done changed from 0 to 80

Done. Still need documentation.

#2 - 27 Oct 2016 16:36 - Anna Maria Bigatti

- Estimated time set to 3.00 h

#3 - 02 Nov 2016 17:15 - John Abbott

- Description updated

#4 - 02 Nov 2016 17:17 - John Abbott

- Status changed from New to Resolved

Do you plan to add MultiplicityQuot and DimQuot to CoCoA-5?
If one computes dim(P/I), does that actually create a new quotient ring?

#5 - 02 Nov 2016 18:38 - Anna Maria Bigatti

John Abbott wrote:

> Do you plan to add MultiplicityQuot and DimQuot to CoCoA-5?
> If one computes dim(P/I), does that actually create a new quotient ring?

I added them to CoCoA-5 and they are used to compute dim(P/I). (approx half time)
(They do not create a quotient ring)

#6 - 07 Nov 2016 17:53 - John Abbott

What exactly does multiplicity do?

I made the mistake of trying to compute multiplicity(I) instead of multiplicity(P/I); CoCoA-5 gave me an integer (not the one I expected) rather than error. Is this correct?

#7 - 02 Mar 2017 13:34 - Anna Maria Bigatti

John Abbott wrote:

> What exactly does multiplicity do?
>
> I made the mistake of trying to compute multiplicity(I) instead of multiplicity(P/I); CoCoA-5 gave me an integer (not the one I expected) rather than error. Is this correct?

Yes: multiplicity is defined for a module (not yet implemented in cocoalib), so also for an ideal.

#8 - 02 Mar 2017 13:51 - Anna Maria Bigatti

Still to do: non-homogenous input

#9 - 29 Mar 2017 16:49 - Anna Maria Bigatti

- Target version changed from CoCoALib-0.99550 spring 2017 to CoCoALib-0.99560

#10 - 08 Nov 2017 18:39 - John Abbott

Should this issue be postponed?

#11 - 09 Nov 2017 13:59 - John Abbott

- Target version changed from CoCoALib-0.99560 to CoCoALib-0.99600

#12 - 02 Aug 2018 16:43 - Anna Maria Bigatti

- Target version changed from CoCoALib-0.99600 to CoCoALib-0.99650 November 2019

Yet to be fixed: non homogeneous input.
(postponed)

#13 - 01 Oct 2019 12:09 - John Abbott

- Target version changed from CoCoALib-0.99650 November 2019 to CoCoALib-0.99700

#14 - 13 Feb 2020 10:09 - Anna Maria Bigatti

- Target version changed from CoCoALib-0.99700 to CoCoALib-0.99800

Yet to be fixed: non homogeneous input.
(postponed again)

#15 - 29 Jan 2021 11:52 - Anna Maria Bigatti

AnnaM think and close this!

#16 - 05 Feb 2022 20:19 - John Abbott

Postpone?

#17 - 07 Feb 2022 16:25 - Anna Maria Bigatti

- Target version changed from CoCoALib-0.99800 to CoCoALib-0.99850

Anna Maria Bigatti wrote:

> Yet to be fixed: non homogeneous input.
> (postponed again)

and again

#18 - 08 Mar 2024 18:15 - Anna Maria Bigatti

- Target version changed from CoCoALib-0.99850 to CoCoALib-0.99880