

CoCoA-5 - Feature #1374

Add function power to CoCoA-5

09 Dec 2019 11:58 - Anna Maria Bigatti

Status:	Closed	Start date:	09 Dec 2019
Priority:	Normal	Due date:	
Assignee:	Anna Maria Bigatti	% Done:	100%
Category:	CoCoA-5 function: new	Estimated time:	1.33 hour
Target version:	CoCoA-5.3.0	Spent time:	1.40 hour
Description			
In CoCoA we can write g^4 , but in CoCoALib we have to write <code>power(g,4)</code> (because of incompatible priority of operator [^] in C++). It would be handy to have <code>power</code> in CoCoA too: this is helpful when testing CoCoALib snippets in CoCoA.			

History

#1 - 09 Dec 2019 12:03 - Anna Maria Bigatti

- % Done changed from 10 to 40

Implemented for RingElem (in OneLiners)

#2 - 09 Dec 2019 12:21 - John Abbott

I have just checked in a `power` function defined in `cocolib.cpkg5`.

My approach means that `power` works for any type (where [^] is defined in CoCoA-5); is this an advantage?

#3 - 09 Dec 2019 12:46 - Anna Maria Bigatti

oops, we overlapped and made incompatible changes.

But I think you had a better idea.

Should I undo my cvs?

#4 - 09 Dec 2019 13:37 - John Abbott

- % Done changed from 40 to 60

If you are convinced that my approach is better, then, yes, please undo your CVS update.

I am not certain whether `cocolib.cpkg5` is the right place...??

#5 - 09 Dec 2019 13:55 - John Abbott

Should the function be documented?

If so, we should probably state that it exists just to increase compatibility between CoCoA-5 and CoCoALib (and may be "ignored" by those who have no intention of porting code to CoCoALib?)

#6 - 09 Dec 2019 15:42 - Anna Maria Bigatti

- % Done changed from 60 to 70

John Abbott wrote:

If you are convinced that my approach is better, then, yes, please undo your CVS update.

ok

I am not certain whether coclib.cpkg5 is the right place...??

it makes some sense: a place to have functions just for compatibility, but not worth a proper interface (at least for the time being)

#7 - 09 Dec 2019 16:07 - John Abbott

- % Done changed from 70 to 60

I am inclined to say that there is not much point in writing any tests for power. What do you think?

#8 - 09 Dec 2019 16:26 - Anna Maria Bigatti

- % Done changed from 60 to 70

John Abbott wrote:

I am inclined to say that there is not much point in writing any tests for power. What do you think?

I agree.

I undid my change in cvs.

#9 - 09 Jan 2020 11:56 - John Abbott

- Status changed from In Progress to Feedback

- % Done changed from 70 to 90

- Estimated time set to 1.33 h

I have just added a manual entry for power. I also removed the keyword power from the entry for DiagMat.

#10 - 13 Feb 2020 16:30 - John Abbott

- Status changed from Feedback to Closed

- % Done changed from 90 to 100

To appease Anna I have implemented the special case of the power of a diagonal matrix in CoCoALib (and removed PowerDiag as a keyword for the entry about DiagMat).