CoCoA-5 - Support #1368

Improve manual for mod

24 Nov 2019 12:58 - John Abbott

| Status: | Closed | Start date: | 24 Nov 2019 | |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|-------------|-------------|
| Priority: | Normal | Due date: | | |
| Assignee: | John Abbott | % Done: | 100% | |
| Category: | Manual/documentation | Estimated time: | 0.77 hour | |
| Target version: | CoCoA-5.3.0 | Spent time: | 0.75 hour | |
| Description | | | | |
| The manual entry for mod needs to be improved. | | | | |
| Ange recently reported that mod(a,p) = mod(b,p) did not work as she expected; the main point being that a and b has opposite signs. | | | | |
| Make the manual clearer. | | | | |
| Related issues: | | | | |
| Related to CoCoALib - Design #1182: "mod" for BigInt | | | Closed | 04 May 2018 |
| History | | | | |

#1 - 24 Nov 2019 13:04 - John Abbott

- Status changed from New to In Progress

- % Done changed from 0 to 10

Currently the manual and the implementation are incompatible. The manual says that the remainder is always non-negative, but this is not true:

/**/ mod(-1,7); -1

A very similar issue arose about a year ago in CoCoALib; it seems the CoCoA-5 manual was not checked/updated. We should do this.

#2 - 24 Nov 2019 13:04 - John Abbott

- Related to Design #1182: "mod" for BigInt added

#3 - 24 Nov 2019 13:11 - John Abbott

- Status changed from In Progress to Resolved
- Assignee set to John Abbott
- % Done changed from 10 to 50

The solution to Ange's problem is to compute mod(a-b,p); this will be zero iff a and b are congruent modulo p. Perhaps I should add this to the manual...??

#4 - 09 Jan 2020 11:43 - John Abbott

- Status changed from Resolved to Feedback
- % Done changed from 50 to 90
- Estimated time set to 0.77 h

I have updated the manual entry; I think it is clear now.

#5 - 13 Feb 2020 15:44 - John Abbott

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