CoCoA-5 - Bug #1288

len for RINGELEM ?!?

24 May 2019 16:22 - John Abbott

Status:	Closed		**Start date:**	24 May 2019
Priority:	High		**Due date:**	
Assignee:	John Abbott		**% Done:**	100%
Category:	bug		**Estimated time:**	1.01 hour
Target version:	CoCoA-5.3.0		**Spent time:**	1.00 hour

Description

I was surprised to discover that len can be applied to a RINGELEM.

```
f := x+1;
len(f);
2
```

The manual says len can be applied only to STRING or LIST.
(use NumTerms instead!)

History

#1 - 24 May 2019 16:25 - John Abbott

The manual entry for len looks a bit strange, and is hard to read. It says the fn signature is

```
len(E: STRING|LIST): INT
```

I think it would be clearer to write two separate signatures.

Also ?Commands and Functions for LIST does not list len; probably the automatic parser does not recognise the funny signature...

NOTE I have just modified the signature in my personal copy, and now len does appear in the list of fns for LIST.

#2 - 24 May 2019 17:43 - John Abbott

The source code for the function len is in file BuiltinFunctions-CoCoALib.C around line 100.

The code recognises the types STRING, LIST, RINGELEM, MAT and MatrixRowValue.
The last two give helpful error messages, but for RINGELEM it calls NumTerms; surely this should also give a helpful error message?

#3 - 01 Oct 2019 14:14 - John Abbott

- Priority changed from Normal to High

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

#4 - 16 Oct 2019 22:15 - John Abbott

- Status changed from New to Feedback

- Assignee set to John Abbott

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

- % Done changed from 0 to 90

The CoCoA-5 manual page has already been fixed.

I have just modified BuiltinFunction-CoCoALib.C so that an error is given if len is applied to a RINGELEM (no check that the ringelem is from a poly ring). I had to change one lone in tests/anna.cocoa5, and now everything seems fine.

One could argue that len(RINGELEM) should be "obsolescent", but that would make things awfully complicated (possibly without much benefit).

#5 - 22 Oct 2019 11:04 - Anna Maria Bigatti

- Status changed from Feedback to Closed

- % Done changed from 90 to 100

#6 - 22 Oct 2019 11:04 - Anna Maria Bigatti

- Estimated time set to 1.01 h

#7 - 13 Feb 2020 16:07 - Anna Maria Bigatti

- Description updated