CoCoA-5 - Bug #1157

FactorAlgExt

21 Feb 2018 06:14 - Elisa Palezzato

Status:	Closed	**Start date:**	21 Feb 2018
Priority:	Normal	**Due date:**	
Assignee:	Elisa Palezzato	**% Done:**	100%
Category:	Incomplete function	**Estimated time:**	2.01 hours
Target version:	CoCoA-5.2.4	**Spent time:**	1.00 hour

Description

In cocoa-5.2.2 FactorAlgExt overlooks the missing coefficient: that is, the irreducible factors are correct, but the costant leading coefficient is not considered.

Related issues:

Related to CoCoALib - Feature #1203: factor over algebraic extensions	**Closed**	**31 Jul 2018**

History

#1 - 21 Feb 2018 08:43 - Anna Maria Bigatti

Missing coefficient:

```
use QQ7::=QQ[z];
L:= QQ7/ideal(z^6 + z^5 + z^4 + z^3 + z^2 + z + 1);
use L[t,x, y];
F:=x^3 + t^3*x + t;
G01:= subst(F, x, -z*t - z^3);
G01;
indent(FactorAlgExt(G01));
-- record[
 -- RemainingFactor := (1),
 -- factors := [t^2 +(z^2)*t +(z^4)],
 -- multiplicities := [2]
--]
H:=(t^2 +(z^2)*t +(z^4))^2;
H;
H=G01;
-z*H=G01;
```

#2 - 22 Feb 2018 03:36 - Elisa Palezzato

- File FactorAlgExt.cpkg5 added

Ho cambiato solo il return finale.

Elisa

#3 - 01 Mar 2018 09:30 - Anna Maria Bigatti

- Description updated

- Category set to Incomplete function

- Status changed from New to Feedback

- Assignee set to Elisa Palezzato

#4 - 01 Mar 2018 09:30 - Anna Maria Bigatti

- Estimated time set to 2.01 h

#5 - 01 Mar 2018 09:31 - Anna Maria Bigatti

- Target version set to CoCoA-5.2.4

- % Done changed from 0 to 90

#6 - 31 Jul 2018 13:13 - Anna Maria Bigatti

- Related to Feature #1203: factor over algebraic extensions added

#7 - 31 Jul 2018 13:13 - Anna Maria Bigatti

- Status changed from Feedback to Closed

- % Done changed from 90 to 100

Files

FactorAlgExt.cpkg5	2.68 KB	22 Feb 2018	Elisa Palezzato