CoCoALib - Feature #1117

Better printing of negative coeffs

07 Nov 2017 12:34 - John Abbott

Status:	In Progress	**Start date:**	07 Nov 2017
Priority:	Normal	**Due date:**	
Assignee:		**% Done:**	10%
Category:	Improving	**Estimated time:**	0.00 hour
Target version:	CoCoALib-1.0	**Spent time:**	0.25 hour

Description

Currently CoCoALib prints out polys wth negative rational coeffs in an ugly way:

```
/**/ x-(1/2)*y;
x +(-1/2)*y
```

Improve printing so that we get -(instead of +(-

```
/**/ x-(1/2)*y;
x -(1/2)*y
```

Related issues:

Related to CoCoALib - Bug #74: printing polynomials	**New**	**22 Dec 2011**
Related to CoCoALib - Feature #222: Printing polynomials - spaces between terms	**In Progress**	**08 Aug 2012**
Related to CoCoALib - Design #432: Semantics of IsPrintedWithMinus	**In Progress**	**31 Jan 2014**
Related to CoCoALib - Design #1156: Printing for RingElem	**New**	**12 Feb 2018**

History

#1 - 07 Nov 2017 12:34 - John Abbott

- Related to Bug #74: printing polynomials added

#2 - 07 Nov 2017 12:34 - John Abbott

- Related to Feature #222: Printing polynomials - spaces between terms added

#3 - 07 Nov 2017 12:34 - John Abbott

- Related to Design #432: Semantics of IsPrintedWithMinus added

#4 - 07 Nov 2017 13:39 - John Abbott

- Status changed from New to In Progress

- % Done changed from 0 to 10

JAA suggests that we handle integer and rational coeffs specially; all other coeffs are handled in a generic way.
Here are some examples:

```
/**/ use QQ[x,y];
/**/ x-(1/2)*y;  -->  currently prints as x +(-1/2)*y
x-(1/2)*y
/**/  x-(1/2);  // better with or without brackets?
x-1/2
```

NOTE: currently CoCoA does print the second poly as x -1/2; so no brackets, and special handling for the minus sign!

If coeff is not rational do not handle "negative" values specially:

```
/**/ use QQ(a)[x,y];  // not valid CoCoA syntax
/**/ x + (-a+1)*y;
x +(-a+1)*y
```

What about the following:

```
use QQ(a)[x,y];
/**/ x-a*y;
x +(-a)*y
```

#5 - 12 Feb 2018 12:30 - John Abbott

- Related to Design #1156: Printing for RingElem added

#6 - 12 Jun 2018 17:12 - John Abbott

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

#7 - 23 Sep 2019 11:52 - John Abbott

- Target version changed from CoCoALib-0.99650 November 2019 to CoCoALib-1.0