CoCoALib - Bug #1081

ideal() * RingElem gives error

20 Jun 2017 16:19 - Anna Maria Bigatti

Status:	Closed		Start date:	20 Jun 2017
Priority:	Normal		Due date:	
Assignee:	Anna Maria Bigatti		% Done:	100%
Category:	Maths Bugs		Estimated time:	1.01 hour
Target version:	CoCoALib-0.99560		Spent time:	0.90 hour

Description

```
ideal() * RingElem
```

gives error

History

#1 - 20 Jun 2017 16:20 - Anna Maria Bigatti

fixed it: now testing

#2 - 20 Jun 2017 16:27 - Anna Maria Bigatti

- Status changed from New to Feedback

- % Done changed from 0 to 90

added tests in anna.cocoa5

#3 - 08 Nov 2017 14:18 - John Abbott

Should we allow ideals to be multiplied by integers or rational numbers?

```
I := ideal(x);
2*I;  -->  ERR not defd
I*2;  -->  ERR not defd
RingElem(R,2)*I;  --> works
I*RingElem(R,2);  --> works
```

Also note the difference below:

```
I*RingElem(R,2); --> loses factor of 2
I*(2*y);         --> keeps factor of 2
```

Is this behaviour what we want?

#4 - 08 Nov 2017 16:59 - Anna Maria Bigatti

John Abbott wrote:

> Should we allow ideals to be multiplied by integers or rational numbers?

I vote "no"

JAA responds OK, let's try without; if later we need it, we can easily add it.

> Also note the difference below:
> [...]
> Is this behaviour what we want?

This is the only case where it matters, and it works:

```
/**/ ideal(ZZ, [3]);
ideal(3)
/**/ It * RingElem(ZZ,2);;
ideal(6)
```

I think it's good enough as it is.

#5 - 08 Nov 2017 17:03 - John Abbott

- *Status changed from Feedback to Closed*

- *% Done changed from 90 to 100*