

## CoCoA-5 - Feature #1410

### IsDivisible also for INT

03 Feb 2020 13:40 - John Abbott

<b>Status:</b>	Closed	<b>Start date:</b>	03 Feb 2020
<b>Priority:</b>	High	<b>Due date:</b>	
<b>Assignee:</b>	Anna Maria Bigatti	<b>% Done:</b>	100%
<b>Category:</b>	enhancing/improving	<b>Estimated time:</b>	2.01 hours
<b>Target version:</b>	CoCoA-5.3.0	<b>Spent time:</b>	1.95 hour
<b>Description</b>			
In CoCoALib IsDivisible works for various types of value, including integers. In CoCoA-5, it expects just a RINGELEM.  Extend it to work with INT too?			

### History

#### #1 - 03 Feb 2020 13:42 - John Abbott

- Status changed from New to In Progress
- % Done changed from 0 to 10

I have been caught out by this myself on several occasions. I know one can use mod instead, but it is more expressive if one can write IsDivisible(a,b).

Florian asked me about it today (over lunch).

It should be easy to implement; should we? Shall we?

#### #2 - 03 Feb 2020 15:48 - Anna Maria Bigatti

John Abbott wrote:

I have been caught out by this myself on several occasions. I know one can use mod instead, but it is more expressive if one can write IsDivisible(a,b).

I agree.

So, it is just to add all the combination of types (somehow) for cocoa-5?

#### #3 - 03 Feb 2020 16:03 - John Abbott

- % Done changed from 10 to 20

Yes. I think there are probably just two (main) cases:

- RINGELEM and RINGELEM
- INT and INT

- not so sure about INT and RINGELEM (or RINGELEM and INT)

#### #4 - 13 Feb 2020 10:19 - Anna Maria Bigatti

- Assignee set to Anna Maria Bigatti

done

```
/**/ use QQ[x];
/**/ IsDivisible(9,3);
true
/**/ IsDivisible(9,2);
false
/**/ IsDivisible(9*x,2); -- 9*x is in QQ[x], so divisible by any constant!!
true
/**/ use ZZ[x];
/**/ IsDivisible(9*x,2);
false
```

#### #5 - 13 Feb 2020 15:40 - Anna Maria Bigatti

- Status changed from In Progress to Closed

- % Done changed from 20 to 100

- Estimated time set to 2.01 h

manual done