

## CoCoALib - Bug #199

### CFApprox: division by zero

29 Jun 2012 14:48 - Anna Maria Bigatti

<b>Status:</b>	Closed	<b>Start date:</b>	29 Jun 2012
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	John Abbott	<b>% Done:</b>	100%
<b>Category:</b>	Maths Bugs	<b>Estimated time:</b>	0.75 hour
<b>Target version:</b>	CoCoALib-0.9952	<b>Spent time:</b>	0.75 hour
<b>Description</b>			
<pre>/**/ CFApprox(-0.51, 1/10); ***** ****CoCoA ERROR****  ErrCode: CoCoA::ERR::DivByZero ****CoCoA ERROR****  Message: Division by zero or by a zero-divisor ****CoCoA ERROR****  Context: BigRat (N1,N2) ****CoCoA ERROR****  File:    BigRat.C ****CoCoA ERROR****  Line:    99 *****</pre>			
I guess the problem is in ContFractler::operator++			
<pre>myFrac = 1/(myFrac - myQuot); // strictly positive!</pre>			

### History

#### #1 - 29 Jun 2012 16:49 - John Abbott

- % Done changed from 0 to 100

The bug was a consequence of when I changed the definition of integer division (from round towards -infinity to round towards zero).

I have added a new **test-NumTheory3.C** specifically for this bug.

#### #2 - 29 Jun 2012 17:17 - John Abbott

- Status changed from New to Closed

I forgot to close the issue and to count CVS time etc.

#### #3 - 29 Jun 2012 17:23 - Anna Maria Bigatti

- Assignee set to John Abbott

- Target version set to CoCoALib-0.9952

- Estimated time set to 0.75 h