# Ruby - Bug #5178

# Complex#rationalize should rationalize

08/10/2011 10:39 AM - marcandre (Marc-Andre Lafortune)

Status:	Closed		
	Normal		
Priority:	Normai		
Assignee:			
Target version:			
ruby -v:	r32354	Backport:	
Description			
Complex#rationalize currently calls to_r on the real part instead of rationalize:			
f = 1/3.0			
c = Complex(f) c.to_r == f.to_r	# => true		
c.rationalize == f.rational			
Should I not commit this to 1.9.3 too?			
diffgit a/complex.c b/complex.c			
index 78f09021b76074 100644			
a/complex.c			
+++ b/complex.c @@ -1335,7 +1335,8 @@ nucomp_to_f(VALUE self)			
<ul> <li>call-seq:</li> <li>cmp.to_r -&gt; rational</li> </ul>	al		
<ul> <li>Returns the value as a rational if possible.</li> </ul>			
<ul> <li>If the imaginary part is exactly 0, returns the real part as a Rational,</li> </ul>			
<ul> <li>otherwise a RangeError is raised.</li> <li>*/</li> </ul>			
static VALUE			
nucomp_to_r(VALUE self) @@ -1354,14 +1355,22 @@ nucomp to r(VALUE self)			
• call-seq:			
<ul> <li>cmp.rationalize([eps]) -&gt; rational</li> </ul>			
<ul> <li>Returns the value as a rational if possible. An optional argument</li> </ul>			
<ul> <li>∘ eps is always ignored.</li> </ul>			
$\circ$ If the imaginary part is exactly 0, returns the real part as a Rational,			
<ul> <li>otherwise a RangeError is raised.</li> <li>*/</li> </ul>			
static VALUE nucomp_rationalize(int argc, VALUE *argv, VALUE self)			
{ • get_dat1(self); • rb_scan_args(argc, argv, "01", NULL);			
<ul> <li>return nucomp_to_r(self);</li> </ul>			
<ul> <li>if (k_inexact_p(dat-&gt;imag)    f_nonzero_p(dat-&gt;imag)) {</li> </ul>			
•			

•	
•	
• }	
<ul> <li>return rb_funcall(dat-&gt;real, rb_intern("rationalize"), argc, argv);</li> <li>}</li> </ul>	

## Associated revisions

#### Revision 2e2fabc4 - 08/10/2011 10:35 AM - Kenta Murata

- complex.c (nucomp\_rationalize): calls rationalize of real part if imaginary part is exactly zero. The patch is made by Marc-Andre Lafortune. fixes [Bug #5178] [ruby-core:38885]
- test/ruby/test\_complex.rb (test\_rationalize): add a test for the above change.
- complex.c (nucomp\_to\_r): fix RDoc comment. The patch is made by Marc-Andre Lafortune.

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@32903 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

#### Revision d72d87cd - 08/10/2011 10:40 AM - Kenta Murata

Merge the commit r32903:

\* complex.c (nucomp\_rationalize): calls rationalize of real part if imaginary part is exactly zero. The patch is made by Marc-Andre Lafortune. fixes [Bug #5178] [ruby-core:38885] \* test/ruby/test\_complex.rb (test\_rationalize): add a test for the above change.

\* complex.c (nucomp\_to\_r): fix RDoc comment. The patch is made by

Marc-Andre Lafortune.

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby\_1\_9\_3@32904 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

### History

## #1 - 08/10/2011 07:35 PM - mrkn (Kenta Murata)

- Status changed from Open to Closed
- % Done changed from 0 to 100

This issue was solved with changeset r32903. Marc-Andre, thank you for reporting this issue. Your contribution to Ruby is greatly appreciated. May Ruby be with you.

- complex.c (nucomp\_rationalize): calls rationalize of real part if imaginary part is exactly zero. The patch is made by Marc-Andre Lafortune. fixes [Bug <u>#5178]</u> [ruby-core:38885]
- test/ruby/test\_complex.rb (test\_rationalize): add a test for the above change.
- complex.c (nucomp\_to\_r): fix RDoc comment. The patch is made by Marc-Andre Lafortune.