

Bug Fixing in SMC

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Let's all smash bugs together!



Oh nos! What is this crazy error?

```
sage: arrow([1,2,1],[2,1])
```

```
TypeError: unsupported operand parent(s) for '-': 'Vector space of
dimension 2 over Real Double Field' and 'Vector space of
dimension 3 over Real Double Field'
```

Stack traces and digging around in code and...

```
arrow((0,1), (2))
| Error in lines 1-1
Traceback (most recent call last):
  File "/projects/6e87fa6e-59d2-4bda-bd8d-1bd5f71f8292/.sagemathcloud/sage_server.py
", line 733, in execute
    exec compile(block+'\n', '', 'single') in namespace, locals
  File "", line 1, in <module>
  File "/projects/6e87fa6e-59d2-4bda-bd8d-1bd5f71f8292/sage-dev/local/lib/python2.7/
site-packages/sage/plot/arrow.py", line 461, in arrow
    raise TypeError('Arrow requires headpoint and tailpoint to be of the same dimens
ion.')
TypeError: Arrow requires headpoint and tailpoint to be of the same dimension.
```

Viola! Better error message!

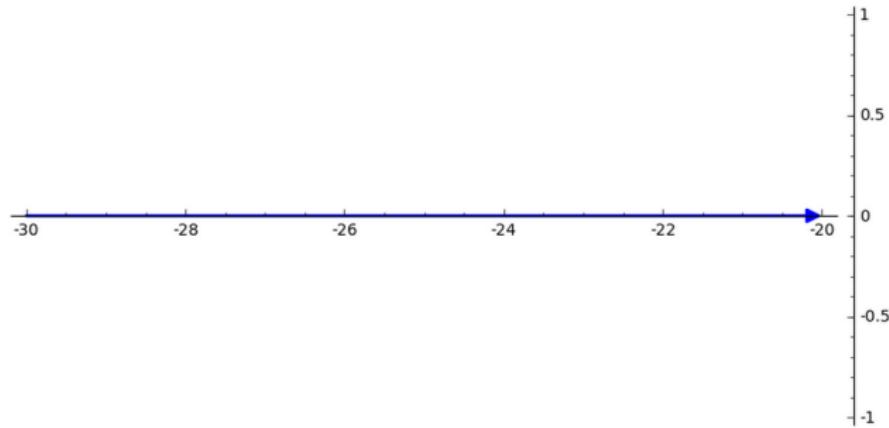
Why the heck can't we do this?

```
sage: arrow([1],[1])
```

ArithmetError: Cross product only defined for vectors of length
three or seven, not (3 and 1)

Arrow Plotting!

```
plot(arrow([-30],[-20]))
```



Doesn't look like much, but Sage didn't do this before!

Who wants to help?

But Phil...



How can I be a Helpie Helperson?

You do! But what do you need?

- ▶ git
- ▶ Web Browser (Chrome is best)
- ▶ The knowledge you already have from this class!

But don't I need a complex dev environment?



**The Development is
inside the software?**

How many software packages allow you to develop the software IN THE SOFTWARE?

How Awesome is SageMathCloud?



Freakin' AWESOME that's how awesome!

So who wants to help?



Look at these beginner bugs!



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Open Beginner Tickets (that don't have pos review) (21 matches)

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Group results by descending Show under each result: Description Max items per page: 100

Ticket	Summary	Status	Type	Priority	Milestone	Component
#4458	tutorial and reference manual should explain NameError	needs_work	defect	major	sage-6.3	documentation
#8780	improve doctest coverage for sage/ring/matrix.py	new	enhancement	minor	sage-6.3	documentation
#8827	add symbolic section to the reference manual	new	enhancement	major	sage-6.3	documentation
#9824	improve desolve_system initial condition documentation	needs_work	defect	major	sage-6.3	calculus
#10779	Improve coverage test for structure/element.pyx	needs_work	enhancement	major	sage-6.3	doctest coverage
#11258	Add documentation for plotting max and min functions	new	enhancement	major	sage-6.3	graphics
#13110	ComplexNumber should be able to accept the Python complex type	needs_work	defect	major	sage-6.3	numerical
#13649	Implement sigma.domain() and sigma.codomain() for sigma a permutation	needs_info	enhancement	major	sage-6.3	group theory
#13907	Fix doctests in sage/ext/fast_eval.pyx	needs_info	defect	major	sage-6.3	documentation
#14044	Document bdst env vars for Mac clearly	new	defect	major	sage-6.3	documentation
#14599	Allow custom fill endpoints in a filled plot	new	enhancement	major	sage-6.3	graphics
#15019	Add example for plot3d with min, max, ymax to Graphics.show	new	enhancement	major	sage-6.3	graphics
#15265	Improve documentation for reviewers	new	defect	major	sage-6.3	documentation
#15899	improve documentation in symbolic/expression_conversions.py	new	defect	major	sage-6.3	documentation
#16228	make tachyon respect standard verbosity settings	new	defect	major	sage-6.3	graphics
#5956	image dimensions for show() are in inches	needs_work	defect	minor	sage-6.3	graphics
#8383	Make symbolic versions of moebius, sigma, and euler_phi functions	new	enhancement	minor	sage-6.3	symbolics
#10032	Even more improvements in plot documentation	new	defect	minor	sage-6.3	graphics
#10597	Riemann sums, added trapezoid option	needs_work	enhancement	minor	sage-6.3	calculus
#10653	Formatting error in doc for dynamic classes	needs_info	defect	minor	sage-6.3	documentation
#10925	Better error message for arrow plots	new	enhancement	minor	sage-6.3	graphics
#11200	More examples for symbolic gridline with plot3d	new	defect	minor	sage-6.3	graphics
#11201	Point Users of solve() to the to_poly_solve option	needs_work	enhancement	minor	sage-6.3	documentation
#11536	Add warning or optional or something to TransitiveGroups doc	new	defect	minor	sage-6.3	documentation
#11541	Add example with solution_dict and substituting in a matrix	new	enhancement	minor	sage-6.3	documentation
#12114	Add minor clarification about using pylab to plot doc	new	enhancement	minor	sage-6.3	graphics
#12275	option spin=True should probably raise an error if viewer isn't jmol	needs_work	defect	minor	sage-6.3	graphics
#15352	mention "adding http-Links" in The Sage Manuals	new	enhancement	minor	sage-6.3	documentation
#12298	minor CallableSymbolicExpressionRing display bug.	needs_work	defect	trivial	sage-6.3	symbolics
#12908	unnecessary blank in latex expression of multivariate polynomial	needs_work	defect	trivial	sage-6.3	user interface
#13716	(very) Minor improvements to the multivariate polynomials documentation	needs_work	enhancement	trivial	sage-6.3	commutative algebra



Be the developmer you want to see in SMC!

