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Subject: Math Question

Posted by [David Fanning](#) on Sun, 29 Oct 2006 16:02:56 GMT

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Folks,

OK, I get the feeling that I am going to be referred to my own web page with this question:

[http://www.dfanning.com/math\\_tips/sky\\_is\\_falling.html](http://www.dfanning.com/math_tips/sky_is_falling.html)

And it is certainly true that I have been watching WAY too much TV lately (World Series, you know), but here is my question. How does one explain the following two IDL commands?

```
IDL> Help, (-0.1)^2.0
<Expression>  FLOAT  =  0.0100000
IDL> Help, (-0.1)^2.01
<Expression>  FLOAT  =  -NaN
```

In general, raising a negative number to any integer power seems to produce a real number, whereas raising a negative number to a non-integer power causes a NAN.

I am sure this is explained in one of those textbooks covered with dust in my garage, but I thought one of you math guys could rescue me from a beautiful day spent covered with dust. :-)

Cheers,

David

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David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

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