
Subject: Re: Need Math Instruction

Posted by [Jeremy Bailin](#) on Thu, 07 Mar 2013 04:52:54 GMT

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Is it $-4*arec$ or $-4*arec*crec$?

-Jeremy.

On 3/6/13 7:22 PM, David Fanning wrote:

> Folks,

>

> I need some help with a math problem. Here are some values and an
> expression. The result of the expression is a NaN.

>

> arec= 7.0380332e-005

> brec= 0.011374851

> crec= 0.010008938

> drec= 3.8378659e-005

> Tprec = (brec-(brec^2 -4*arec)^(1.0/2))/(2*arec)

>

> IDL> help, Tprec

> TPREC FLOAT = -NaN

>

> I want to know why this is a NaN and how to explain the following
> results:

>

> IDL> help, brec, arec

> BREC FLOAT = 0.0113749

> AREC FLOAT = 7.03803e-005

>

> IDL> print, (brec^2 -4*arec)

> -0.000152134

> IDL> d = (brec^2 -4*arec)

> IDL> help, d

> D FLOAT = -0.000152134

>

> IDL> print, d^(1.0/2)

> -NaN

>

> IDL> print, -0.000152134^(1.0/2)

> -0.0123343

>

> IDL> print, d, format='(F0.12)'

> -0.000152134089

>

> IDL> print, -0.000152134089D^(1.0/2)

> -0.012334265

```
>
> IDL> print, Float(-0.0001521340891486)^(1.0/2)
>      -NaN
>
> IDL> print, -0.0001521340891486^(1.0/2)
>      -0.0123343
>
> IDL> print, Double(-0.0001521340891486D)^(1.0/2)
>      -NaN
>
> IDL> print, -0.0001521340891486D^(1.0/2)
>      -0.012334265
>
> Any ideas?
>
> Thanks,
>
> David
>
```
