
Subject: Re: New user needs help

Posted by [m.a.vaughan](#) on Wed, 04 Jun 1997 07:00:00 GMT

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In article <Pine.SOL.3.95.970602190951.20024A-100000@comp>,

Brent Ragar <bragar@comp.uark.edu> wrote:

] - Hi all!

] -

] - First off I feel I should apologize for being so ignorant. My

] - professor handed me the IDL package and told me to just write a program

] - for our research. I haven't ever programmed before and have been unable to

] - find one thing I need in the manual, the FAQ, or on a web page...

] - I am wanting to use IDL to solve a transcendental equation. All

] - the values are defined except one variable, which cannot be isolated (at

] - least not with the math I've had). Is there some magical way that I can

] - have IDL solve for this variable? I can set an expression that includes

] - the value equal to an integer, if that would help. I'm really at a loss.

] - I'm sorry if I've asked something that's been covered before, but I didn't

] - really know what I was looking for and dejanews couldn't help me! Private

] - e-mail is welcome and much appreciated. Thanks in advance for you

] - assistance!

I haven't been at this IDL stuff very long myself (started with the 5.0 demo), so there may be other ways to do this...

- o The FX_ROOT function should get you what you want (this is an implementation of Muller's method)
- o if you have a differentiable function and a reasonable starting guesstimate the Newton's method is the way to go...

$$x[i+1] = x[i] - \frac{f(x[i])}{f'(x[i])}$$

You should be able to find Muller's method and Newton's method in any introductory numerical analysis text (e.g. Burden & Faires; also in Numerical Recipes)

Mark Vaughan

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] --Brent Ragar

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