

# Re: A question on Newton's Method

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*Source:* <http://sci.tech-archive.net/Archive/sci.math.num-analysis/2005-04/msg00059.html>

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- *From:* "James Van Buskirk" <[not\\_valid@xxxxxxxxxxxx](mailto:not_valid@xxxxxxxxxxxx)>
  - *Date:* Sun, 3 Apr 2005 15:42:00 -0600
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"Jon Harrop" <[usenet@xxxxxxxxxxxx](mailto:usenet@xxxxxxxxxxxx)> wrote in message  
[news:42503d87\\$0\\$42333\\$ed2619ec@xx](mailto:news:42503d87$0$42333$ed2619ec@xx)

- > Really? Have you considered the Fortran equivalent of my numerical analysis
- > example? How about some other examples? Can you design a single example of
- > numerical analysis which is more comprehensible in Fortran?

Please submit your equivalent of

<http://home.comcast.net/~kmbtib/conv2b.f90>

in the non-Fortran language of your choice!

- >>  $f[x_] := x^3 - x - 1$
- >>  $fp[x_] := D[f[x], x]$
- >>  $\text{Plot}[fp, \{x, -1, 2\}]$

> Of course not, it's wrong.

- > Firstly, there's no point in defining  $fp[x]$  when you can just use  $f'[x]$ .
- > Secondly, you need to give the plot function an expression to plot, not a
- > function. So you want:

- >  $\text{Plot}[f'[x], \{x, -1, 2\}]$

No, I don't want this! In ordinary everyday mathematical usage, you can define a new function to be the derivative of an old function. For example,  $\psi(x) = (d/dx)(\ln(\Gamma(x)))$ . We want to be able to do this in Mathematica; I don't want to keep referring to the original function (as in your  $f'[x]$  above.) So the original example should have been changed to:

- >>  $f[x_] := x^3 - x - 1$
- >>  $fp[x_] := D[f[x], x]$
- >>  $\text{Plot}[fp[x], \{x, -1, 2\}]$

When you finally figure out how to make this work you will have an excellent example of the true horror of Mathematica!

write(\*,\*) transfer((/17.392111325966148d0,6.5794487871554595D-85, &  
6.0134700243160014d-154/),('x/')); end

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• *Follow-Ups:*

- ◆ *Re: A question on Newton's Method*  
◇ *From:* Jon Harrop
- ◆ *Re: A question on Newton's Method*  
◇ *From:* Roman Werpachowski

• *References:*

- ◆ *A question on Newton's Method*  
◇ *From:* David M
- ◆ *Re: A question on Newton's Method*  
◇ *From:* Jon Harrop
- ◆ *Re: A question on Newton's Method*  
◇ *From:* beliaivsky
- ◆ *Re: A question on Newton's Method*  
◇ *From:* James Van Buskirk
- ◆ *Re: A question on Newton's Method*  
◇ *From:* Roman Werpachowski
- ◆ *Re: A question on Newton's Method*  
◇ *From:* Jon Harrop
- ◆ *Re: A question on Newton's Method*  
◇ *From:* James Van Buskirk
- ◆ *Re: A question on Newton's Method*  
◇ *From:* Jon Harrop

- Prev by Date: *Re: can somebody verify this C program which calls dsaupt ? (longish)*
- Next by Date: *Re: A question on Newton's Method*
- Previous by thread: *Re: A question on Newton's Method*
- Next by thread: *Re: A question on Newton's Method*
- Index(es):
  - ◆ *Date*
  - ◆ *Thread*