Subject: Re: Differentiation in IDL Posted by Wox on Mon, 16 Oct 2006 13:54:27 GMT

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```
Specify x?
dx = DERIV(x * !dtor,data)
On Mon, 16 Oct 2006 07:49:21 -0600, David Fanning <news@dfanning.com>
wrote:
> Folks,
> OK, I'm missing something crucial here.
> Suppose I have a sine function:
   x = Findgen(360)
>
   data = Sin(x * !dtor)
   Plot, data
>
> I know that d/dx(\sin(x)) = \cos(x). So, I would expect
> a cosine looking curve if I differentiate the data above.
   dx = DERIV(data)
>
   OPlot, dx, Linestyle=2
>
> The differentiated curve is almost a straight line! One
> could argue that it might have the correct cosine *shape*
> (squint your eyes a little bit), but the scale is vastly
> different. How come?
>
> Cheers,
> David
```