
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
```
