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Subject: Re: How to calculate the abscissa values for the given vertical values  
Posted by [duxiyu@gmail.com](mailto:duxiyu@gmail.com) on Mon, 05 Oct 2009 13:43:01 GMT  
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Maybe my statement is not clear.

There is a function  $Y=F(X)$ , and I want to calculate the correspondent abscissa values  $X$  for  $Y=0$ .

It means that there are several intersection points between the line  $Y=F(X)$  and the horizontal line  $Y=0$ , and I want to get the correspondent abscissa values of these points.

On Oct 5, 3:10 pm, Wox <[s...@nomail.com](mailto:s...@nomail.com)> wrote:

> On Mon, 5 Oct 2009 01:56:20 -0700 (PDT), "[dux...@gmail.com](mailto:dux...@gmail.com)"

>

> <[dux...@gmail.com](mailto:dux...@gmail.com)> wrote:

>> Hi, all.

>> I want to calculate the abscissa values for the given vertical values.

>

>> For example,

>>  $x = \text{findgen}(1000)/1000*4*\pi$

>>  $y = \cos(x)$

>> I want to get the abscissa values for  $y=0$ .

>> For this example, the results should be  $[\pi/2, 3*\pi/2, 5*\pi/2, 7*\pi/2]$ .

>> But how can I get it by IDL codes?

>

>> Best wishes,

>> jdu

>

> Just for this function:

>  $\text{print}, (\text{indgen}(\text{ceil}(\text{max}(x)/\pi)) + 1) * \pi/2$

>

> What do you need exactly? You can always find the answer analytically

> no?

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