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Subject: Re: Math Question #1

Posted by [CarrierII](#) on Sun, 09 Nov 2008 15:32:30 GMT

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If  $Y = \frac{\sin(5X)}{2 - 2 \cdot \cos(2X)}$

then as  $X \rightarrow 0$ ,  $Y \rightarrow \text{infinity}$ .

If  $X = 0$  then

$\sin(5X) = \sin(0) = 0$ .

$2 - 2\cos(2 \cdot 0) = 2 - 2\cos(0) = 2 - 2(1) = 0$ . - Can't divide by zero!

Thus if  $X$  is almost 0, we have

$\frac{\sin(5X)}{2 - 2\cos(\sim 0)}$  which is

$\frac{\sin(5X)}{2 - 2(\sim 1)}$  which is

Some number / Some other number  $< 1$  and close to 0. This causes the whole expression to increase in value because you're dividing by a fraction.

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