Subject: Re: Math Question #1
Posted by archerman on Sun, 09 Nov 2008 16:23:49 GMT
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CarrierII wrote on Sun, 09 November 2008 17:32If Y = Sin(5X) / 2 - 2 * Cos(2X)

then as X -> 0, Y -> infinity.

If X = 0 then

Sin(5X) = Sin(0) = 0.

2 - 2Cos(2*0) = 2 - 2Cos(0) = 2 - 2(1) = 0. - Can't divide by zero!

Thus if X is almost 0, we have

Sin(5X) / 2 - 2Cos(~0) which is
Sin(5X) / 2 - 2*(~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.

maybe i didnt understand, but how would you know that the numerator increases more as the denominator increases less? maybe the numerator is a fraction too. sin5x is the closest to zero, and 2-2cosx is the closest to zero as well because 2-2cosx=2-2*1=~0. so its still 0/0.