
Subject: Re: Math Question #1

Posted by [StealthEye](#) on Sun, 09 Nov 2008 16:26:31 GMT

[View Forum Message](#) <> [Reply to Message](#)

Your answer is correct, carrier, however the method is not. Try the same with assuming the dividend is "some number" and your approach will lead you to the limit being 0, which is not correct.

I can't really come up with a correct prove either however. Closest I can get is to say that $y=\sin(a)$ behaves like $y=a$ for $x \sim 0$ and $b=\cos(a)$ behaves like 1 in that interval. Computing the limit after substituting those gives $\lim = +\infty$. This, however, is not solid prove either (actually, it's just disguised 'l hopital).

I would expect it would be possible to rewrite the $1-\cos(x)$ to some sin variant or vice versa and then solve it to get rid of (one of) the trig functions. 'l hopital is much easier.
