

How to get partial credit

Name _____ Date _____
raw scaled percent

Calculus Trimester 1 Quiz 4 (16 Points)

Limits

■ There are two questions. One question on each side of this sheet.

[1] Prove $\lim_{x \rightarrow -2} (x^2 - 1) = 3$. You must use the definition and give an ϵ - δ proof.

Suppose you cannot do the proof?

Reciting the definition of the limit will get you partial credit. Obviously, part of the point of this question is "Does student know what it means for a function to have a limit?"

Otherwise, the examiner may reasonably conclude that cannot do proof and you do not even know what the proof requires. Perhaps that is why you cannot do the proof.

Reciting the definition requires *no mathematical skill what-so-ever*. Only knowledge of essential content is needed to recite the definition.

[2] Evaluate the limit. $\lim_{\theta \rightarrow 0} \frac{\tan 5\theta}{\sin 2\theta}$.

Suppose you cannot do the problem?

Reciting the crucial theorem will get you partial credit. Obviously, part of the point of this question is "Does student know the theorem $\lim_{\theta \rightarrow 0} \frac{\sin \theta}{\theta} = 1$?"

Knowing this theorem requires *no mathematical skill what-so-ever*. Only knowledge of essential content is needed.

■ The inability to complete a proof or solve a particular problem at a certain time is completely understandable. Sometimes one just gets stuck. It happens. We cannot always produce insight on demand. However, the lack of knowledge of recently treated content is completely inexcusable.

■ Remember that the examiner is attempting to assess what you know and can do. It is to your advantage to show what you know that is relevant to the question even if you do nothing more than that.