childsmath $\int_M d\omega = \int_{\partial M} \omega$

Math 3A03
Poll Results

earn

Background: Cauchy sequences

Question #1 A sequence $\{s_n\}$ is said to be a Cauchy sequence if and only if for all $\varepsilon > 0$ there exists $N \in \mathbb{N}$ such that if $m \geq N$ and $n \geq N$ then $|s_n - s_m| < \varepsilon$. Which of the following statements are true if $\{s_n\}$ is a sequence in $\mathbb{R}$?

(A) If $\{s_n\}$ is a Cauchy sequence then it converges
(B) If $\{s_n\}$ diverges then it is not a Cauchy sequence
(C) If $\{s_n\}$ converges then it is a Cauchy sequence
(D) If $\{s_n\}$ is not a Cauchy sequence then it diverges
(E) $\{s_n\}$ converges if and only if it is a Cauchy sequence