MAT237 Multivariable Calculus with Proofs

Problem Set 2 solutions

Due Thursday October 9, 2025 by 23:59 ET

Remark:

(2a) Note that any choice of $M \geq |a|(\sqrt{n}+1)$ will work.

(4b) Technically, one should also verify that $\gamma(y(k)) \neq \gamma(s)$. This is true by Line 5: $\gamma(y(k)) \in S$ for all k, but $\gamma(s) \notin S$. Thus the sequence $\gamma(y(k))$ is actually a sequence in $S \setminus \{\gamma(s)\}$ converging to $\gamma(s)$, which implies that $\gamma(s)$ is a limit point of S.