

Individual 8

Yu Fan Mei
Introduction to Proof and Problem Solving

November 10, 2024

Problem 1. Consider the function

$$f(x) = \begin{cases} x - 2 & x \leq 4 \\ \frac{3}{2}x - 2 & x > 4 \end{cases}.$$

Show that $\lim_{x \rightarrow 4} f(x)$ does not exist.

Proof. Set $\epsilon_0 = a$. Let

□

While working on this proof, I received no external assistance aside from advice from Professor Mehmetaj.