

Written Homework Problems §2.2

17 problems for 34 points

Problems in **red** are suggested extra practice and are not mandatory.§2.2 # 36,**39**,46-49,59-61,**62-64,68-70**, 71-76Problem A: Make a table of values to determine $\lim_{x \rightarrow 4} \frac{\ln(x) - \ln(4)}{x - 4}$.Problem B: Determine the limits below. *Justify* your answers.

(1) $\lim_{x \rightarrow -3^-} \frac{4x}{x + 3}$

(2) $\lim_{x \rightarrow 4^+} \ln(x^2 - 16)$

Problem C: Find any vertical asymptotes of $f(x) = \frac{x + 2}{x(x - 3)}$ and *justify* your answers using limits.