Quiz #5, 9/27
Math 156 (Calculus I), Fall 2022

Problem 1 is worth 10 points (2.5 pts each part), for a total of 10 points. Remember to *show your work* on all problems!

1. For each of the following limits: compute the limit, or if it does not exist explain why.

   (a) $\lim\limits_{x \to \infty} \dfrac{5x^2 + 2x - 1}{3x^2 - x + 4}$

   (b) $\lim\limits_{x \to \infty} \dfrac{x^3 + 1}{10x^2}$

   (c) $\lim\limits_{x \to 1} \ln(\sin(\dfrac{\pi}{2} \cdot x))$

   (d) $\lim\limits_{x \to 0} e^{\left(\frac{x^2 + x}{x}\right)}$