

Quiz 02

Math 140-002: Calculus I (Spring 2026)
Week 2 (Jan 19–Jan 23, 2026)

Relevant topics: Limits (one-sided/two-sided), continuity, vertical asymptotes, epsilon–delta idea

Time: 10–20 minutes.

Instructions: No notes. Show essential steps. Focus on definitions and computational fluency.

1. Evaluate $\lim_{x \rightarrow 1} \frac{x^2 - 1}{x - 1}$.
2. Find $\lim_{x \rightarrow 0^+} \ln x$.
3. State the epsilon–delta definition of $\lim_{x \rightarrow a} f(x) = L$.
4. Identify the hole and vertical asymptote of $f(x) = \frac{x-3}{x^2-5x+6}$.