

Math 131 - Quiz 3

September 3, 2025

Name _____

Score _____

Show all work to receive credit. Supply explanations where necessary. Partial credit may be awarded on multiple choice problems for correct work or explanations.

1. (3 points) Determine the limit analytically: $\lim_{x \rightarrow 0} \frac{(x-2)^2 - 4}{x}$

2. (3 points) Determine the limit analytically: $\lim_{t \rightarrow 16} \left(\frac{4 - \sqrt{t}}{32 - 2t} \right)$

3. (3 points) Determine the limit analytically: $\lim_{x \rightarrow -1} \frac{x^2 + 3x + 2}{2x^2 + 2x}$

4. (1 point) Determine the limit analytically: $\lim_{z \rightarrow -3} \frac{(z-4)^2 + 2(z+1)}{z+3}$