

Math 233 - Quiz 7

March 26, 2026

Name _____

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (8 points) Find the limit or show that it does not exist.

(a) $\lim_{(x,y) \rightarrow (0,0)} \frac{5x^3y}{2x^6 + y^2}$

(b) $\lim_{(x,y) \rightarrow (3,3)} \frac{x^2 - y^2 + x - y}{2x - 2y}$

(c) $\lim_{(x,y,z) \rightarrow (1,2,3)} \frac{\sqrt{x} - 3y + z^2}{x + 2y + 2z}$

2. (2 points) Give three different paths through the point (1, 2).