

QUIZ 1

Name _____

1. Find each of the following limits, if they exist. If they do not exist, explain why not.

(a) $\lim_{h \rightarrow 0} \frac{(h-5)^2 - 25}{h}$

(b) $\lim_{t \rightarrow 25} \frac{25-t}{5-\sqrt{t}}$

(c) $\lim_{x \rightarrow \infty} \frac{2x^2 - 1}{3x^4 + 2}$

2. Let $h(x) = \begin{cases} x & \text{if } x < 0 \\ x^2 & \text{if } 0 < x < 2 \\ 8-x & \text{if } x > 2 \end{cases}$

Find where h is not continuous.