

January 19, 2020

MAC 2311
Quiz 1 - York

Remember to show all of your work.

Problem 1. (5 points) Determine the following limits, or write DNE:

(a) $\lim_{x \rightarrow 2} \frac{x^2 - x - 2}{x - 2}$

(b) $\lim_{x \rightarrow 1} \frac{4}{(x - 1)^2}$

Problem 2. (5 points)

Let $\lim_{x \rightarrow a} f(x) = 1$, $\lim_{x \rightarrow a} g(x) = 2$, $\lim_{x \rightarrow a} h(x) = 3$, and $\lim_{x \rightarrow a} j(x) = 4$. Calculate the following:

$$\lim_{x \rightarrow a} \left[\frac{f(x) - 2g(x) + (h(x))^2}{g(x) + j(x)} \right]$$