

Mathematics 1110H (Section A) – Calculus I: Limits, Derivatives, and Integrals
TRENT UNIVERSITY, Fall 2024

Quiz #2

Sine δ^\dagger

Wednesday, 18 September.*

In doing this quiz, you may freely use the fact it true that for all real numbers t , $|\sin(t)| \leq |t|$.

1. Use the ε - δ definition of limits to verify that $\lim_{x \rightarrow 0} 2 \sin(2x) = 0$. [5]

[†] With apologies to the creators of *Buckaroo Banzai*. “Remember: no matter where you go, there you are.”

* Please submit your solutions, preferably as a single pdf, via Blackboard’s Assignments module before midnight. If that fails, please submit them to the instructor on paper or via email to sbilaniuk@trentu.ca as soon as you can.