

Name: _____ Student Number: _____

Mathematics 1110H, TRENT UNIVERSITY, Fall 2025

Test #1 for Sections F02 and F04. *Friday, 26 September.* Time: 20 minutes.

Instructions

- Write your name and student number at the top.
- Use only this sheet of paper, including the back side. If you need more paper, ask for it.
- You may use an aid sheet, A4- or letter-size with whatever you want written on all sides, and a calculator, with no restrictions beyond not being able to communicate with other devices.
- **Do any two (2) of questions 1–3.** *If you do all three and don't cross one out, only the first two encountered by the graders will be marked.*

1. Find the x -intercepts and the location of the tip of the parabola $y = x^2 + 2x - 8$. [5]
2. Use the ε – δ definition of limits to verify that $\lim_{x \rightarrow -1} (2x + 4) = 2$. [5]
3. Use the practical rules for computing limits to compute $\lim_{x \rightarrow 1} \frac{x^2 - 7x + 6}{x^2 + 3x - 4}$. [5]