Name: _____ **Student Number:** _____

Mathematics 1110H, TRENT UNIVERSITY, Fall 2025. **The Dread Halloween Test**

a.k.a. **Test #3** for Section F01 and CAT. *Friday, 31 October.* Time: 40 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 question 1.** There is no other ...

1. Find the domain, as well as any and all intercepts, vertical and horizontal asymptotes, intervals of increase and decrease, local maximum and minimum points, intervals of concavity, and inflection points of $f(x) = xe^x$. *[5]*