

MATH 126 – Quiz 7

Due: Wednesday, Oct 29, 2025 on Canvas, 11:59PM

This is a take-home quiz. You may use our textbook and a calculator for arithmetic operations. Generative AI is not allowed- the work that you turn in should be your own. If you have questions, you can ask me (but send them early enough so that I can answer). These are very similar to the homework questions in Section 3.7, so you might try those first.

1. Evaluate the following integrals. (Some of them might diverge.)

A. $\int_2^5 \frac{dx}{\sqrt{x-2}}$

B. $\int_e^\infty \frac{dx}{x \ln^2(x)}$

C. $\int_{-1}^1 \frac{dx}{x^{2/5}}$

2. Find the volume of the solid generated by revolving around the x -axis the region under the curve $y = xe^{-x}$ in the first quadrant. (The first quadrant is $x \geq 0$, $y \geq 0$.)