

## Worksheet 3/2/2026

1) Suppose you want to approximate the integral  $\int_0^3 x e^{-x} dx$  using Trapezoid Rule using  $n$  equal subintervals of  $[0, 3]$ . How large must  $n$  be so that the error is under  $10^{-4}$  ?

2) Use Simpson's Rule to approximate the integral  $\int_1^2 \frac{1}{x} dx$  using six equal subintervals.