

QUIZ 10 - SHOW ALL WORK FOR FULL CREDIT!!

1. Evaluate

(a)  $\int_e^{e^2} \frac{(\ln x)^2}{x} dx$

(b)  $\int_{-1}^1 3xe^{-x^2} dx$

#2 is on the next page

2. Calculate the Riemann sum  $S_n$  for  $f(x) = 9 - x^2$  over the interval  $[2, 5]$  using 6 rectangles and the midpoint rule. Include a neat, precise graph.