

Practice Quiz 11 (L33-L34)

Show all work for full credit.

1. Compute $\int_1^{e^\pi} \sin(\ln(x)) \, dx$. (Hint: do a u -substitution first)

2. Which function goes to zero faster, $f(x) = e^{-x}$ or $g(x) = \frac{1}{x}$. (Hint: consider the asymptotic growth of the reciprocal of these functions)