Name: Grade: /10

Department:

Math 101, Calculus I, Fall 2023, Sec. 1, HTK Quiz 6, Fri., Dec. 8

- 1. (a) Find the absolute maximum value of  $f(x) = \frac{\ln x}{x}$  .
- (b) Using part (a), decide which of  $e^{\pi}$  and  $\pi^e$  is larger.

2. Evaluate 
$$\lim_{x\to 0^+} \frac{e^{-1/x}}{x}$$
 . Evaluate  $\lim_{x\to \infty} \left(xe^{1/x}-x\right)$  .