

Name _____ Student number _____ Quiz section: _____

1 : a) (6 pts) Set up an integral for the arclength of the curve $y = \frac{\ln x}{4} - \frac{x^2}{2}, 1 \leq x \leq 2$.

b) (3 pts) Compute the length of the curve from a). Hint: With a little algebra, the integral becomes really easy.

2 : (10 pts) Find the center of mass of the region between $y = e^x$, the x-axis, and the vertical lines $x = 0$ and $x = 1$.