Name:

PIN:

MATH 3306
Quiz 6.1

(1) Use the definition and integration by part to show that

$$L\left[te^t\right](s) = \frac{1}{s-1}$$

(2) (This question is related to the on line course notes) Find k and a such that $\left|te^t\right| \le ke^{at}$ for all real $t > 0$. This shows that te^t is of exponential order and it's Laplace Transform exists.