Ally Smith

Homework 1

$f(x) = \frac{1}{3}e^{-\frac{1}{3}x}, x > 0$

$\int_0^\infty x\ f(x)dx$

$\frac{1}{3}\int_0^\infty x\ e^{-\frac{x}{3}}dx$

$-(x+3)e^{-\frac{x}{3}}$, evaluate at 0 and ∞

$0 - (-3) = 3$