Reading Quiz #17

姓名：——————— 系級：———學號：——————— 分數：———

Read Section 7.7(pages 493-500), Section 8.5(pages 541-546) and work out the following problems.

1. Evaluate the limits:

   (a) $\displaystyle\lim_{x\to\infty} x^3 e^{-x^2}$

   (b) $\displaystyle\lim_{x\to 0}\left(\frac{1}{\ln x} - \frac{1}{x-1}\right)$

2. Evaluate the integrals:

   (a) $\displaystyle\int \sqrt{x^2+1}\,dx$

   (b) $\displaystyle\int \frac{1+e^x}{1-e^x}\,dx$