HOMEWORK ASSIGNMENT #5

Due Fri. May. 14, 2004 (in class)

1. Poor 4.6. You don't need to solve for $\hat{\theta}_{\mathsf{MMAE}}$ in closed form.
2. Poor 4.8. In part (c), consider the cases $n = 1$ and $n > 1$ separately.
3. Poor 4.11. Replace "What happens when..." with "What happens when (i) $n \to \infty$ assuming $|\alpha| < 1$, (ii) $q^2 \to \infty$, (iii) $q^2 \to 0$".

In many problems of this sort it is *extremely* important to consider the support of the various pdfs. I suggest using the "indicator function" notation

$$I_A(x) = \begin{cases} 1 & x \in A \\ 0 & x \notin A \end{cases}$$

for set A. For example, a unit-exponential r.v. Y has pdf $p(y) = e^{-y} I_{[0,\infty)}(y)$.