MATH 341, ASSIGNMENT #9
DUE: WEDNESDAY, APRIL 3, IN CLASS

Q1. Exercise 17.3.2 on p. 239.

Q2. Exercise 17.3.3 on p. 239.

Q3. Exercise 18.2.2 on p. 248.

Q4. Problem 18.3.2 p. 248.

Q5. Exercise 18.3.3 on p. 248.

Q6. Exercise 19.2.1 on p. 263.

Challenge. Let $f(x) = e^{-1/x^2}$. Show that $f^{(n)}(0) = 0$ for all n.

(*It turns out that* $\lim_{n\to\infty} f^{(n)}(c)/n! \not\to 0$ *for any* $c \neq 0$, *so Taylor's Remainder Theorem cannot be used to show that* $f(x)$ *agrees with its Taylor series expansion at zero for any* $x \neq 0$.)