MATH 3413 Homework 6 Due Thu, Mar 8, 2012

Sec. 7.2: problems 2, 5, 17*, 19*, 25.

* Solve problems 17 and 19 both by applying Theorem 2 and by using partial fractions.

Sec. 7.3: problems 3, 5, 8, 14, 27.

Sec. 7.4: problem 7.

Additional problem 1.
Find the Laplace transform of the function $g(t) = t^2 \mathrm{e}^{-5t}$ in two ways:

(a) by using Theorem 1 from Section 7.3;

(b) by using Theorem 2 from Section 7.4.

You are allowed to use the table of Laplace transforms on page 446.