

**University of Waterloo**  
**MATH 213, Spring 2015**  
**Assignment 6**

**Question 1 (7 marks)**

Find the inverse of the given transform in two different ways: using partial fractions and using the convolution theorem.

$$F(s) = \frac{7}{(s-3)s^3}$$

**Question 2 (3 marks)**

Solve for  $x(t)$  on  $0 \leq t < \infty$ ,

$$x'' - 7x' = \delta(t - 11)$$