HOMEWORK #11 (M427K FALL 2004)

INTRODUCTION

You are supposed to find the *full* solution y to the following differential equations (NOTE that the full solution to these differential equations is $y = y_p + y_c$ where y_c is the solution to the differential equation if the RHS=0!!!). Use the Heaviside method.

1. FIND SOLUTION TO THE DIFFERENTIAL EQUATION

$$(D - 1)^3 y(x) = e^x$$

(Hint: use method $5'$ as outlined for the Heaviside method)

2. FIND SOLUTION TO THE DIFFERENTIAL EQUATION

$$(D + 6)^4 y(x) = 3e^{-6x}$$

(Hint: same as previous)