

HOMework #10 (M427K FALL 2004)

INTRODUCTION

You are supposed to find the “particular” solution y_p to the following differential equations (NOTE that the full solution to these differential equations would be $y_p + y_c$ where y_c is the solution to the differential equation if the RHS=0!!!).

1. FIND THE PARTICULAR SOLUTION TO THE DIFFERENTIAL EQUATION

$$(D - 1)(D + 2)(D - 2)(D + 2)y(x) = e^{3x} + 4e^{-3x} + 7 + \cos(10x) - \sin(11x)$$

2. FIND THE PARTICULAR SOLUTION TO THE DIFFERENTIAL EQUATION

$$D^2(D^2 - 16)(D^2 + 25)y(x) = e^{7x} + \sin(6x)$$