

MATH 215 HW 8

PLEASE TURN IN THE SOLUTION TO THE FOLLOWING PROBLEMS

SECTION 6.3 PAGE 330-331 # 34, 35

SECTION 6.4 PAGE 336-337 # 2, 6, 9, 10

SECTION 6.5 # 2a), 4a, 8a)

IN ADDITION, PLEASE TURN IN THE SOLUTION TO THE EXTRA PROBLEM.

EXTRA CONSIDER  $y'' + 4y' - 5y = -5 + e^{-2t}$   
WITH  $y(0) = \alpha$ ,  $y'(0) = 0$ .

FIND (WITHOUT CALCULATING THE EXPLICIT SOLUTION) THE  
VALUE OF  $\alpha$  FOR WHICH  $y(t) \rightarrow 1$  AS  $t \rightarrow +\infty$ .