

HOMEWORK #12 (Chapter 5 Series solutions of Linear Equations)

In problem 1 and 2, find the solution by using the Taylor series method and the recurrence relations method.

1.  $y'' + x^2 y = 0$  (Exercises 5.1 Problem 14)

2.  $y'' - 2xy' + 8y = 0$ ,  $y(0) = 3$ ,  $y'(0) = 0$  (Exercises 5.1 Problem 27)