

Math 1B Discussion Problems 2 May

1. Use power series to solve the differential equations.

(a) $y'' - xy' + y = 0$

(b) $y'' + y' - x^2 = 0$

(c) $y'' + xy' + y = 0, y(0) = 0, y'(0) = 1$

(d) $(1 - x^2)y'' - 4xy' + 6y = 0, y(0) = 1, y'(0) = 0$