

Math 1B Discussion Problems 30 Apr

1. Solve the differential equations.

(a) $y'' + y' = x^2 + x$

(b) $y'' + 4y = \sin(2x)$

(c) $y'' - 5y' = xe^{5x}$

(d) $y'' + 2y' + 2y = xe^{-x} \cos x$

2. Use power series to solve the differential equations.

(a) $y'' + 4y = 0$

(b) $y'' - 3y' + 2y = 0$