

Math 1B Discussion Problems 25 Apr

1. Solve the differential equations (using the method of undetermined coefficients).

(a) $y'' - 3y' - 10y = 2x - 3$

(b) $y'' + y = 2x + 3e^x$

(c) $y'' + 3y' + 2y = e^{-2x}$

(d) $y'' - 3y' = e^{3x} - 12x$

2. Solve the initial value problems (using the method of undetermined coefficients).

(a) $y'' + y = x, y(0) = 0, y'(0) = 0$

(b) $y'' + y' = x, y(0) = 0, y'(0) = 0$