QUIZ-5$^{\text{th}}$ 2B

1) Solve the differential equation $y'' + y = 0$ for all x and perform the Wronskian test

2) Solve the initial value problem $x^2 y'' - 5xy' + 10y = 0;$ $y(1) = 4,$ $y'(1) = -6$

3) Solve $y'' - 6y' + 9y = 5e^{3x}$