

1. Use the Wronskian to determine if the pair of solutions are linearly independent or dependent.

$$y_1 = e^{3x}, \quad y_2 = e^{3(x-1)}$$

2. Using the reduction of order method, find the second solution to the DE.

$$xy'' - 3y' = 0, \quad y = x^4$$

3. Find the solution to the 2nd order D.E.: $y'' - 4y' + 4y = 0$

4. Pick the solution to the D.E. $y'' - y' - 2y = 4x - 1$

- a) $2x - 3$ b) $x^2 + 2x$ c) $-2x + \frac{3}{2}$