Section 1.3

#18) Suppose $y = e^{rt}$ is a solution to $y'''' - 3y'' + 2y' = 0$

$y_1 = re^t$, $y_1' = re^t$, $y_1'' = 2re^t$, $y_1''' = 3re^t$

$3re^t - 3re^t + 2re^t = 0$

$e^{rt}(r^3 - 3r^2 + 2r) = 0$

$e^{rt} \cdot r (r^2 - 3r + 2) = 0$

$e^{rt} \cdot r (r - 2)(r - 1) = 0$

Never $r = 0, r = 2, r = 1$