



3. (5 pts) For what values of  $r$  is  $e^{rt}$  a solution to the differential equation  $y''' + 8y'' + y' - 42y = 0$ ?

4. (5 pts) At 3:20pm a car starts from rest and travels at constant acceleration along a straight road towards a point B. If the car reaches B at 4:05pm at 55mph, how far is it from A to B?