

1. [16 points] Find real-valued solutions for each of the following, as indicated. (*Note that minimal partial credit will be given on this problem.*)

a. [8 points] Find the general solution to  $y'' + 4y' + 13y = 26t$ .

b. [8 points] Solve  $y'' + 6y' + 8y = e^{-2t}$ ,  $y(0) = 0$ ,  $y'(0) = 0$ .