

1. [15 points] Find explicit, real-valued solutions to each of the following, as indicated. For this problem, use Laplace transforms, **not** some other solution technique.
- a. [8 points] $y'' + 2y' + y = e^{-t}$, $y(0) = 0$, $y'(0) = 1$.

b. [7 points] $y'' + 6y' + 13y = 0$, $y(0) = 1$, $y'(0) = 0$.