July 15, 2015
Math 201, Tutorial 7

1) Use the shifting theorems to find the inverse Laplace Transform of the given functions

   a)
   $$F(s) = \frac{1}{s^2 + 6s + 3}$$

   b)
   $$F(s) = \frac{e^{-2s}}{s^2 + 6s + 3}$$

2) Use the Laplace Transform to solve the following initial value problems.

   a)
   $$y'' + 2y' + 5y = 10 \qquad y(0) = 1, \ y'(0) = 0$$

   b)
   $$y'' + 4y = e^{-t} \qquad y(0) = 2, \ y'(0) = 1$$