Quiz 6 practice
April 27 2016

Show your work

[20] 1.) Given that $\mathcal{L}(e^{at}sin(bt) = \frac{b}{(s-a)^2+b^2}$, find $\mathcal{L}^{-1}\left(\frac{4}{s^2+3s+10}\right)$

$\mathcal{L}^{-1}\left(\frac{4}{s^2+5s+100}\right) =$ _____

2.) Solve $\mathbf{x}' = \begin{pmatrix} 4 & 0 \\ 2 & 3 \end{pmatrix}\mathbf{x}$

$\mathbf{x} =$ _____