ECE 343 - Homework #12

LaPlace Transforms - Summer 2018

Use the definition of LaPlace transforms

$$X(s) = \int_{-\infty}^{\infty} x(t) \cdot e^{-st} \cdot dt$$

to find X(s)

1) $x(t) = 3u(t)$

2) $x(t) = 2e^{-3t}u(t)$

3) $x(t) = \left(\dfrac{e^{j3t} + e^{-j3t}}{2} \right) u(t)$

4) $x(t) = \left(\dfrac{e^{j3t} - e^{-j3t}}{2j} \right) u(t)$

note:
- Problem #3 is the LaPlace transform of cos(3t)
- Problem #4 is the LaPlace transform of sin(3t)