# Pre-tutorial 8 Questions (to be attempted before class on August 9th, 2019)

**Chapter 14, Ex 21: Laplace Transforms**

Using the one-sided Laplace transform equation, calculate (showing intermediate steps) the Laplace transform of the following:

d)  $2.1u(t)$

c)  $5u(t - 2) - 2u(t)$

**Chapter 14, Ex 59: IVT and FVT**

Apply the initial- or final-value theorems as appropriate to determine $f(0^+)$ and $f(\infty)$ for the following functions:

a)  $\dfrac{s+2}{s^2+8s+4}$

c) $\dfrac{4s^2+1}{(s+1)^2(s+2)^2}$