Problem 1 *Final Value Theorem* 10 points

Given the following system

$$\frac{5s+4}{s^2+5s+20}$$

Use the final value theorem to find the value of the system's output as time approaches infinity if the input is a step function from 0 to 5 at $t = 0$.

Problem 2 *Initial Value Theorem* 10 points

The impulse response of a first order system is

$$\frac{1}{\tau} \cdot \frac{1}{s+1/\tau}$$

Use the initial value theorem to find the filters output value at $t = 0$ sec.

Problem 3 *Simulink On-Ramp tutorial* 80 points

Do the Simulink On-Ramp tutorial:
https://matlabacademy.mathworks.com/details/simulink-onramp/simulink
Then attach your completion certificate to your PDF before you upload.