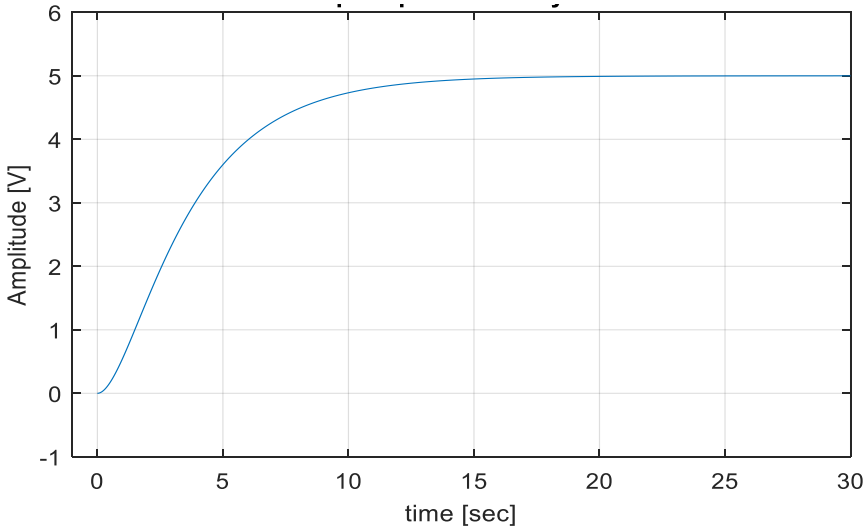
Your name in capitals: **Points:**

1. Consider the following system $H(s) = \frac{5}{(3s+1)(s+1)}$. (2 point)
   a) What are the poles and zeros?
   b) Is the system stable? Why?
   c) What is the static gain?
   d) What is the dominant time constant?

2. Consider the following unit step response of an unknown system. Give an estimation and mark on the figure how you measure the following quantities (4 points):
   a) Static gain =
   b) Settling time =
   c) Rise time =
   d) Overshoot =
   e) Dominant time constant =



3. Consider the following Bode plot of an unknown system. Give an estimation and mark on the figure how you measure the following quantities (4 points):
   a) Static gain =
   b) Crossover frequency =
   c) Gain margin =
   d) Phase margin =