

EENG307: Intro to Feedback Control
Fall 2020
Homework Assignment #5
Quiz #2

Quiz Question Monday: For the following systems, estimate the rise time, settling time, and percent overshoot for a step reference input

1. $G(s) = \frac{6}{s+15}$

2. $G(s) = \frac{16}{s^2+3s+25}$

Which of the following is the correct answer for question 2?

- (a) $t_s = 0.31\text{s}$, $t_r = 0.44\text{s}$, $\%OS = 30\%$
- (b) $t_s = 3.1\text{s}$, $t_r = 0.44\text{s}$, $\%OS = 37\%$
- (c) $t_s = 1.5\text{s}$, $t_r = 0.2\text{s}$, $\%OS = 0\%$
- (d) $t_s = 3.1\text{s}$, $t_r = 5\text{s}$, $\%OS = 0.3\%$
- (e) $t_s = 0.44\text{s}$, $t_r = 3.1\text{s}$, $\%OS = 30\%$