

<b>PS3</b>	<b>NAME</b>	
<b>Problem 1a</b>	Can form the equation of motion → transfer function	
1.1		
1.2	Understands how to get zeta and omega n	
1.3	Knows correct formula to plug in zeta and omega n and obtain: Percent overshoot Settling time $T_s$ Peak time $T_p$	
<b>Problem 2</b>	a) can distinguish that this is a first order system	
2.1		
2.2	Can find tau and find K to have correct final value	
2.3	b) Realizes this is an underdamped second order system	
2.4	finds %OS and $T_p$ or $T_s$ to get zeta and omega n	
2.5	c) same as b	
<b>Problem 3</b>	Understands what a minimal phase system is =	
3.1	pole on right hand side	
3.2	Graph step responses.	
3.3	Integrates to get heading angle	
3.4	Builds block diagram appropriately	
3.5	Creates characteristic equation for closed loop transfer functional	
<b>Problem 4</b>	Can get equation of motion	
4.1		
4.2	Linearizes correctly	
4.3	Finds closed loop characteristic equation	
4.4	Finds different K's for each omega n	