| PS 7 | NAME |  |
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| Problem 1 | Must be able to immediately see that a non- <br> symmetrical plot cannot be a root locus |  |
| 1.2 | Must be able to immediately see there must be a real <br> axis segment if there is an odd number of poles and <br> zeroes to the left |  |
| Problem 2 <br> 2.1 | These should be done by hand, not with matlab. <br> Fills |  |
| 2.2 | Has one branch going towards each zero |  |
| 2.3 | Has the correct number of asymptotes |  |
| Problem 3 <br> 3.1 | a) <br> Is able to plot the root locus correctly. Should be <br> done by hand. |  |
| 3.2 | Uses routh hurwitz table to find the values of K that <br> make the system stable. |  |
| 3.3 | OR <br> Uses matlab or another method to find the value of K |  |
| 3.4 | b) <br> Is able to plot the root locus correctly. Should be <br> done by hand. |  |
| 3.5 | Finds the values of K for stability |  |
| Problem 4 | Plots root locus correctly. <br> 4.1 | Finds the correct number of asymptotes and the <br> angles at which they take off |
| 4.2 | Uses the equation to find the position of the <br> asymptotes. | Finds the K to make the system marginally stable <br> value of K when s = -0.5 |
| 4.3 | Is able to plot back into the equation for K to get the |  |
| 4.4 | 4.5 |  |

