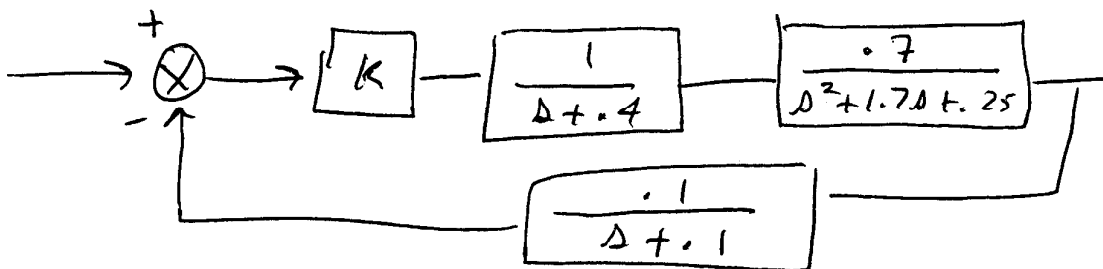
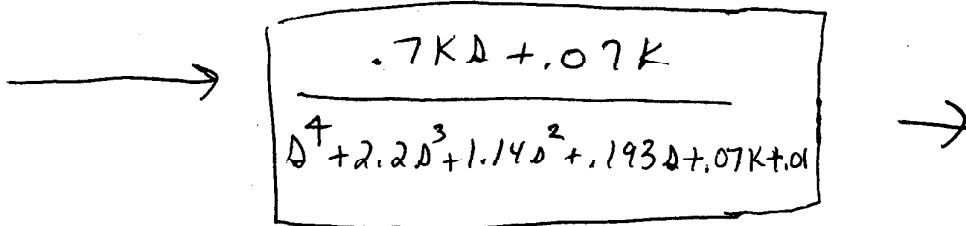
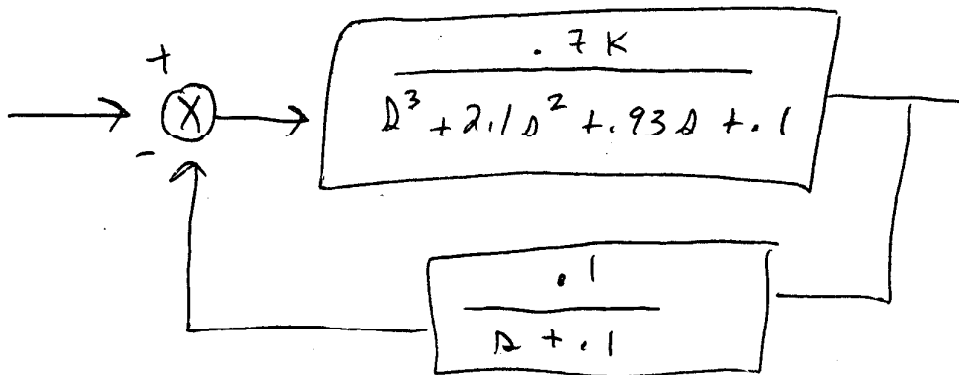


# ECE 460 QUIZ 6 KEY

Find the range of gain,  $K$ , for stability.



Simplify:



$s^4$	1	1.14	$.07K + .01$
$s^3$	2.2	.193	
$s^2$	1.05	$.07K + .01$	
$s^1$	$\frac{.181 - .154K}{1.05}$		
$s^0$	$.07K + .01$		

For stability

$$\frac{.181 - .154K}{1.05} > 0$$

$$K < 1.175$$

$$.07K + .01 > 0$$

$$K > -.143$$

$$\underline{0 < K < 1.175}$$