

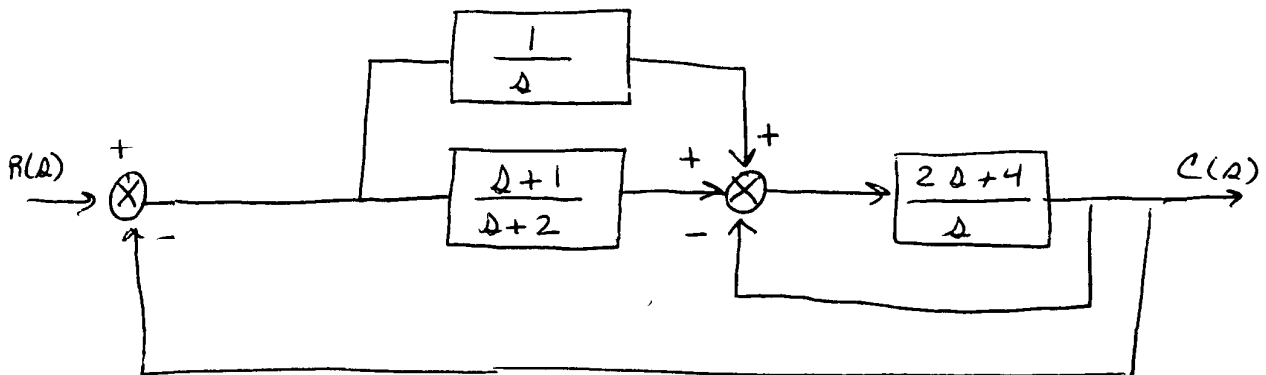
ECE 460 Q6 02/21/00

Name:

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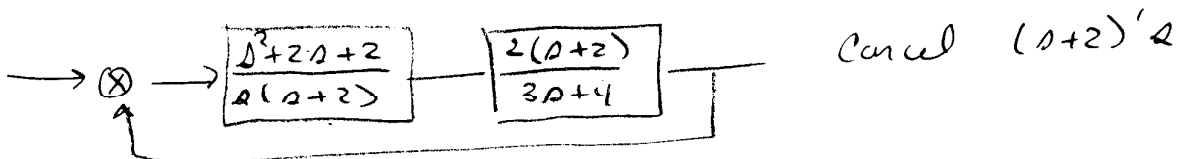
Honor Code:

Find the equivalent Closed Loop Transfer Function



Parallel :  $\frac{1}{s} + \frac{s+1}{s+2} \Rightarrow \frac{s^2 + 2s + 2}{s(s+2)}$

Feedback  $\frac{G}{1+GH} \Rightarrow \frac{2s+4}{3s+4} = \frac{2(s+2)}{3s+4}$



Feedback :  $\frac{(s^2 + 2s + 2) 2}{s(3s+4) + 2(s^2 + 2s + 2)} = \frac{2s^2 + 4s + 4}{5s^2 + 8s + 4}$