ECE 460   QUIZ 7

Find the SSE due to inputs

$$y_1(t) = u(t) \longrightarrow \frac{1}{\delta}$$

$$y_2(t) = t\, u(t) \longrightarrow \frac{1}{\delta^2}$$

$$y_3(t) = t^2 u(t) \longrightarrow \frac{2}{\delta^3} \longleftarrow \text{note the "2"!}$$

for

$$G_1(\delta) = \frac{1}{(\delta+1)(\delta+2)}$$

$$SSE = \lim_{\delta \to 0} \frac{\delta\, R(\delta)}{1 + G(\delta)}$$

$$G_2(\delta) = \frac{1}{\delta\,(\delta+1)(\delta+2)}$$

$$G_3(\delta) = \frac{1}{\delta^2\,(\delta+1)(\delta+2)}$$

All G_i are in unity feedback

	G_1	G_2	G_3
y_1	2/3	0	0
y_2	∞	2	0
y_3	∞	∞	4