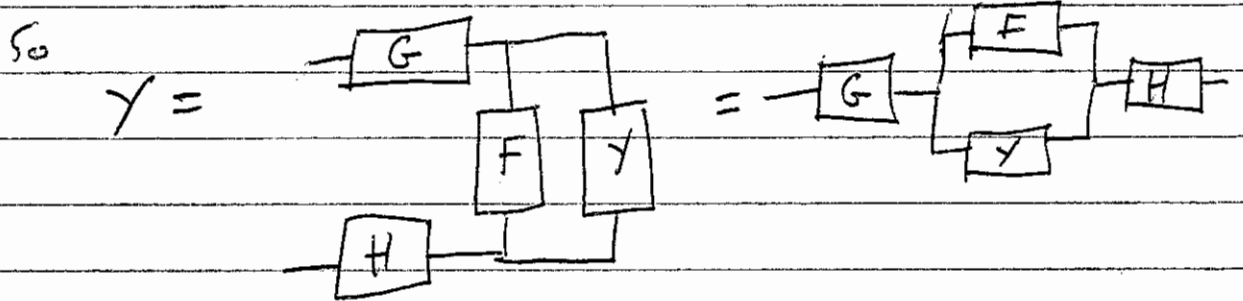


FOURIER Analysis Applics HW (8) (12) Ans

1. γ is semi-infinite.



$$\hat{Y} = \hat{G} \hat{A} (\hat{F} + \hat{Y})$$

$$\hat{Y} (1 - \hat{G} \hat{A}) = \hat{F} \hat{G} \hat{A}$$

$$\hat{Y} = \frac{\hat{F} \hat{G} \hat{A}}{1 - \hat{G} \hat{A}}$$

$$\frac{\hat{A}}{Z} = \hat{F} + 2\hat{Y} = \hat{F} \left(\frac{1 - \hat{G} \hat{A}}{1 - \hat{G} \hat{A}} \right) + \frac{2\hat{F} \hat{G} \hat{A}}{1 - \hat{G} \hat{A}}$$

$$= \frac{\hat{F} (1 + \hat{G} \hat{A})}{1 - \hat{G} \hat{A}}$$