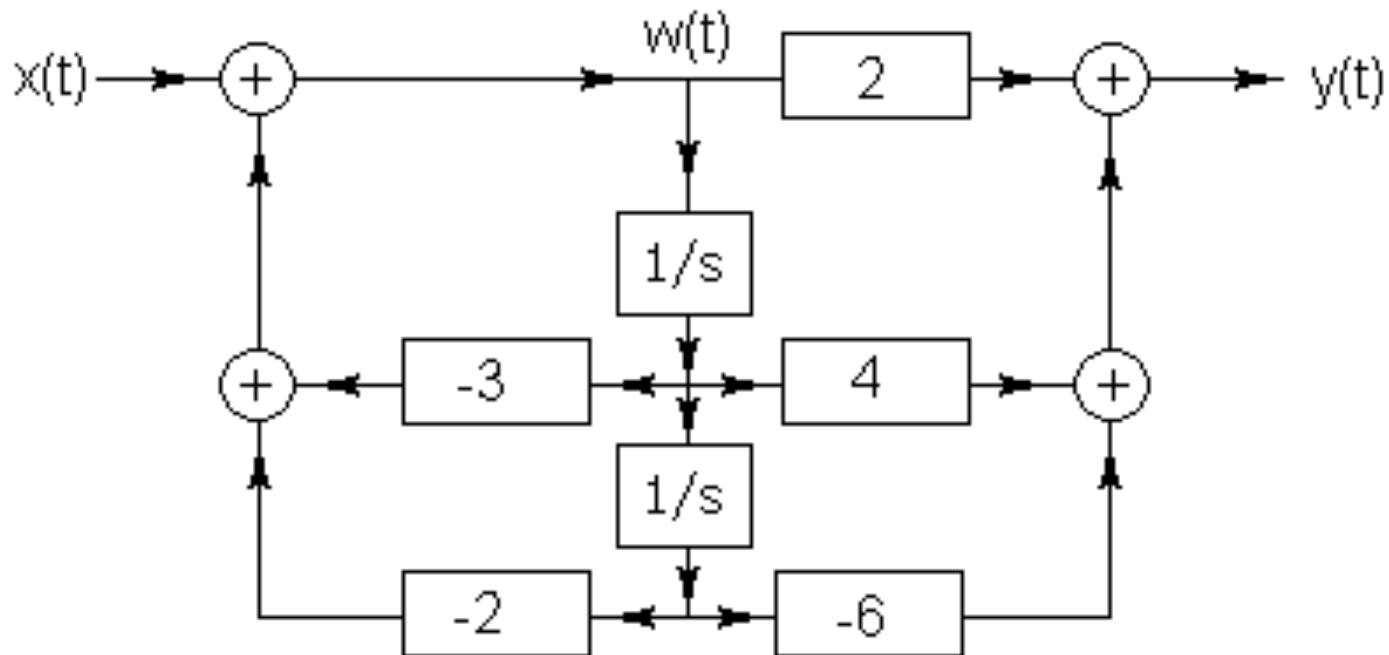


Example (2)

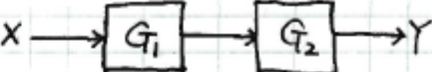


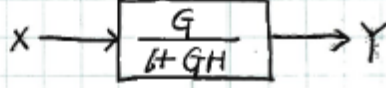

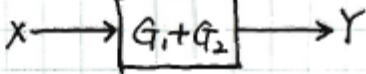


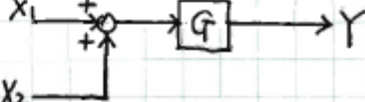


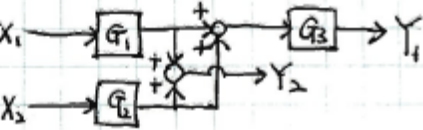
$$Y(s) = 2W(s) + 4s^{-1}W(s) - 6s^{-2}W(s)$$

$$W(s) = -3s^{-1}W(s) - 2s^{-2}W(s) + X(s)$$



Block Diagram Transformation

- Block diagram transformation: (6)

Type of Transformation	Original Diagram	Equivalent Diagram
a) Combining blocks in cascade		
b) Elimination of feedback loop		
c) Combining blocks in parallel		
d) Moving a pick-off point behind a block		
e) Moving a summing point behind a block		
f) Moving a pick-off point ahead of a summing point		

Example: A Disturbance Observer

2) Moving a pick-off point behind a summing point

