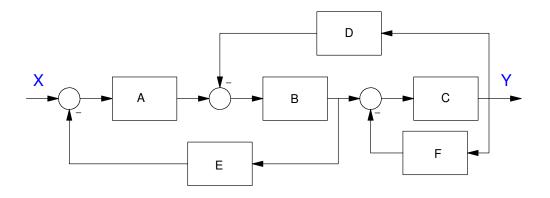
## Homework #5: ECE 461/661

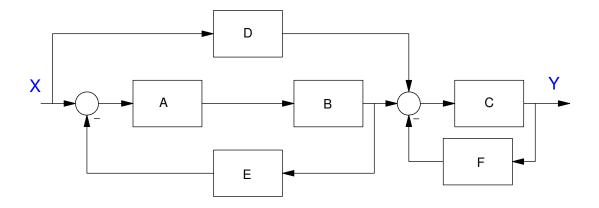
Block Diagrams, Canonical Forms. Due Monday, September 22nd

## **Block Diagrams**

1) Determine the transfer function from X to Y



2) Determine the transfer function from X to Y



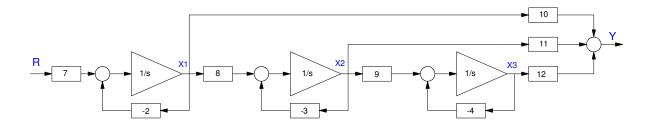
## **Canonical Forms**

3) Give two different state-space models that produce the following transfer function

$$Y = \left(\frac{30}{(s+2)(s+3)(s+4)}\right)U$$

## State-Space

- 4) Express the following system in state-space form
  - Find the transfer function from R to Y



- 5) Express the following system in state-space form
  - Find the transfer function from R to Y

