EEE8068
Real Time Computer Systems
ACM and System Stability

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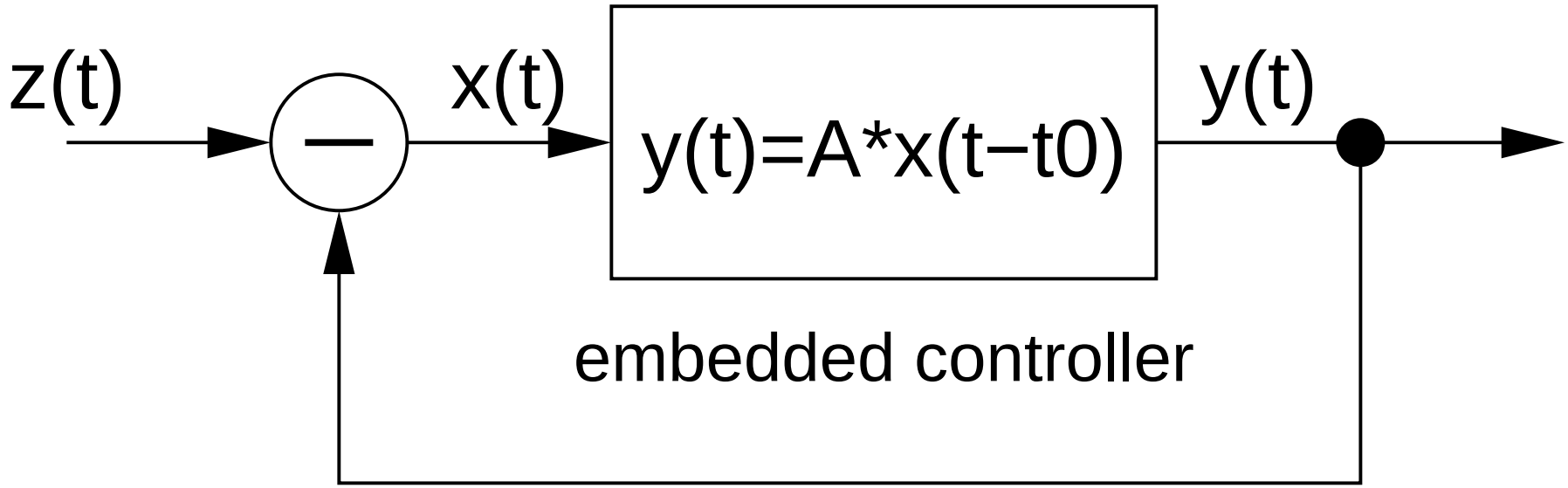
Closed Loop Control System

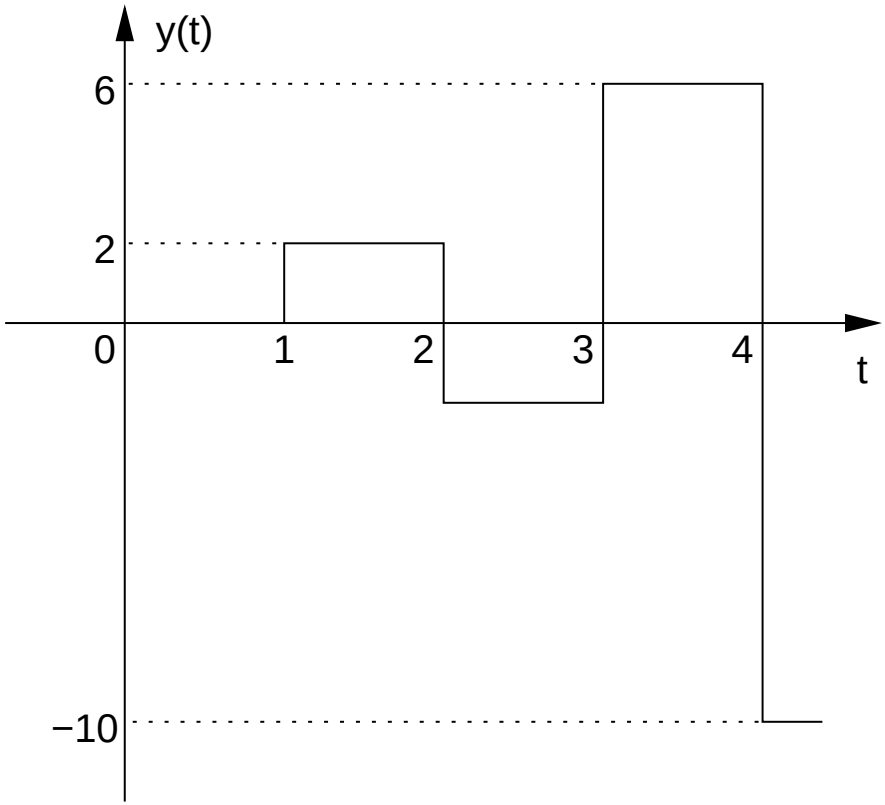


Mathematical model – Delay Differential Equation

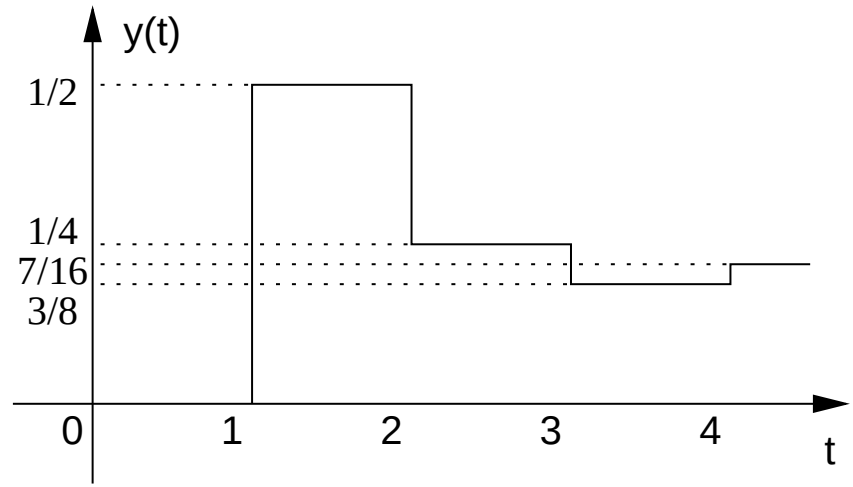
(1) $$\frac{d}{dt}x(t) = f\left(t, x\left(t\right), x_t\right)$$

where $x_t = \{x\left(\tau\right) : \tau \leq t\}$
Solution method: method of steps – read about it.

Response plot



(a) A=2



(b) B=0.5