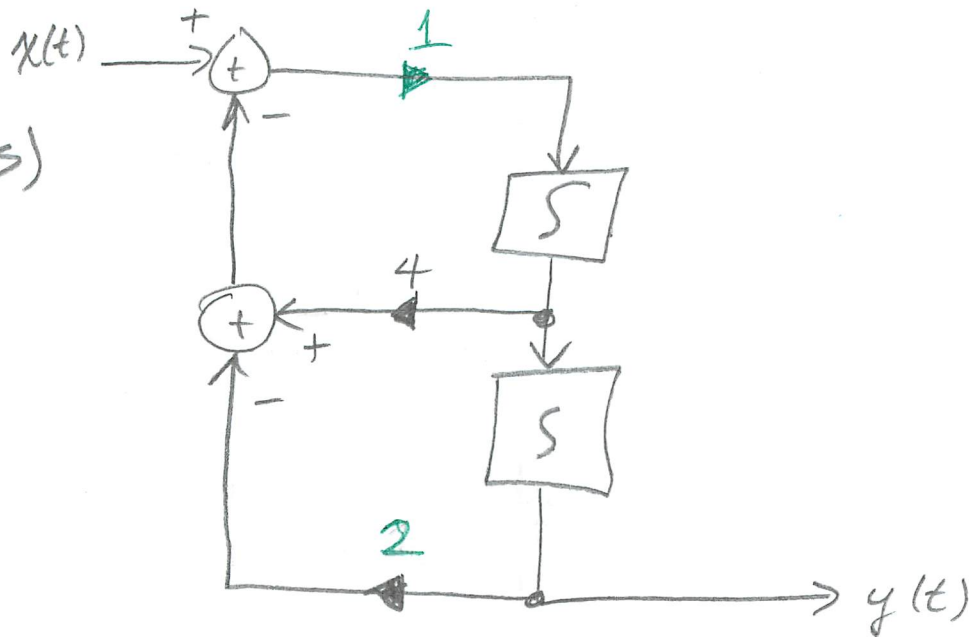


ECE 312 HW #2

Due July 12th by 1200

①
(3 points)



find the impulse response for the above system. (assume $y(0) = y'(0) = 0$)

② Consider



prove that this is a linear system

③ Consider a system with an impulse response $h(t) = e^{-2t} u(t)$.

(3 points) find the output response if the

(1 point) excitation is $x(t) = \cos \omega_0 t$.