1) Find the response of $y(t)$ of a system $G(s)$ for a given input $r(t)$.

Transfer Function $G(s)$	**Initial Condition**	**Input Function $r(t)$**
$\frac{3}{s+3}$	$y(0) = 4$	$2t$
$\frac{3s}{s+3}$	$y(0) = 1$	$2t$
$\frac{1}{0.1s+1}$	$y(0) = 0$	$20 + 10\sin(5t)$
$\frac{s+4}{s^2+5s+6}$	$y(0) = 0, y'(0) = 0$	1
$\frac{2}{s^2+2s+5}$	$y(0) = 0, y'(0) = 0$	1
$\frac{12}{s^2+8s+12}$	$y(0) = 2, y'(0) = -1$	$3e^{-t}$

2) Find the output as a function of the input(s) for the block diagrams shown.