1) Express the following signal in terms of singularity functions, i.e. u(t), δ(t), r(t). Hint: sketch them first.
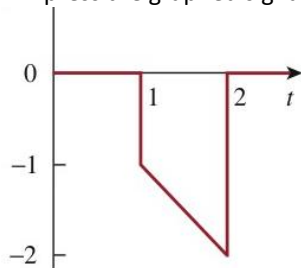
a) $v(t) = \begin{cases} 0, & t < 0 \\ -5, & t \geq 0 \end{cases}$

b) $i(t) = \begin{cases} t-1, & 1 < t \leq 2 \\ 1, & 2 < t \leq 3 \\ 4-t, & 3 < t \leq 4 \\ 0, & otherwise \end{cases}$

2) Express the graphed signal v(t) in terms of singularity functions.

3) Find i(t) for t≥0 in the circuit below