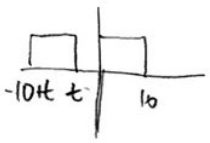
A1) Does not state "Generate MATLAB code", so assuming it is meant to be done by hand.

$x(t) = 1\,u(t) - u(t-10)$, $z(t) = x(t) * x(t)$

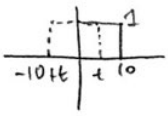
Region 1



$z(t) = 0$

$t < 0$

Region 2



$0 < t < 10$

$$z(t) = \int_0^t (1)(1)\,d\tau = t$$

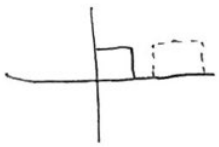
Region 3

$0 < -10+t < 10$

$\hookrightarrow 10 < t < 20$

$$z(t) = \int_{-10+t}^{10} (1)(1)\,d\tau = 20 - t$$

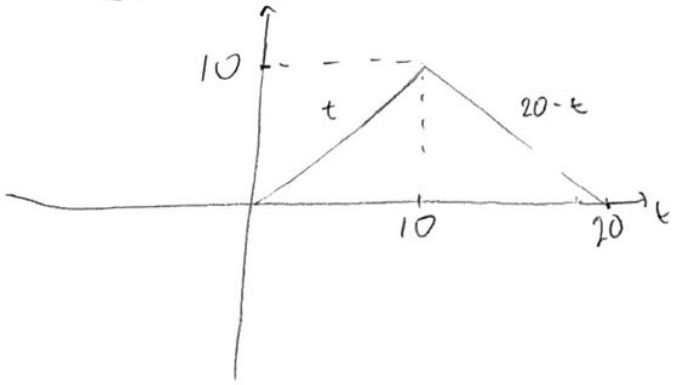
Region 4



$t > 20$

$\rightarrow z(t) = 0$

$z(t) = x(t) * x(t)$



$$z(t) = \begin{cases} 0, & t < 0 \\ t, & 0 < t < 10 \\ 20 - t, & 10 < t < 20 \\ 0, & t > 20 \end{cases}$$