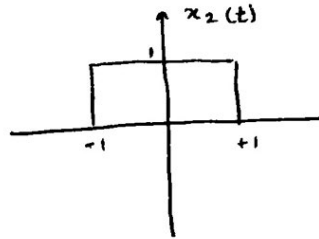
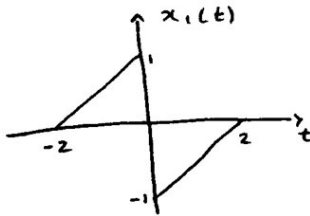


#2



$$x_1 \rightarrow [LTI] \rightarrow y_1$$

$$x_2 \rightarrow [LTI] \rightarrow y_2$$

$$y_1(t) = \frac{d}{dt} (x_1(t))$$

$$y_2(t) = \frac{d}{dt} (x_2(t))$$

$$y_1(t) = x_1(t) * h_1(t) \rightarrow \frac{dy_1(t)}{dt} = \frac{d}{dt} (x_1(t) * h_1(t)) = \frac{d}{dt} (x_1(t)) * h_1(t)$$

$$y_2(t) = x_2(t) * h_2(t) \rightarrow \frac{dy_2(t)}{dt} = \frac{d}{dt} (x_2(t)) * h_2(t)$$

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