Convolution Integral

i. Folding
ii. Shifting
iii. Finding Area

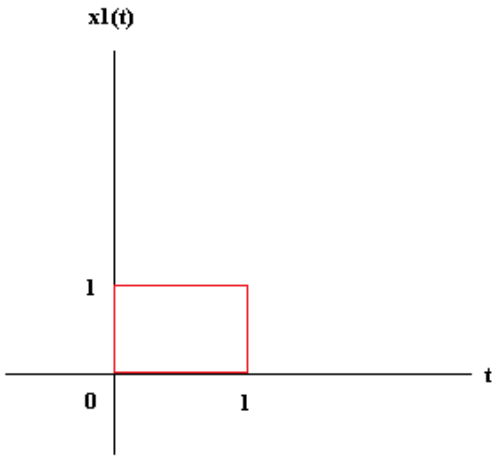
1st time:

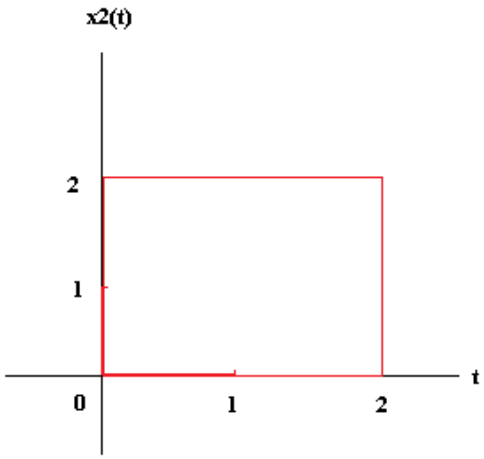
i. Folding
ii. Finding Area

2nd time and more

i. Shifting
ii. Finding Area

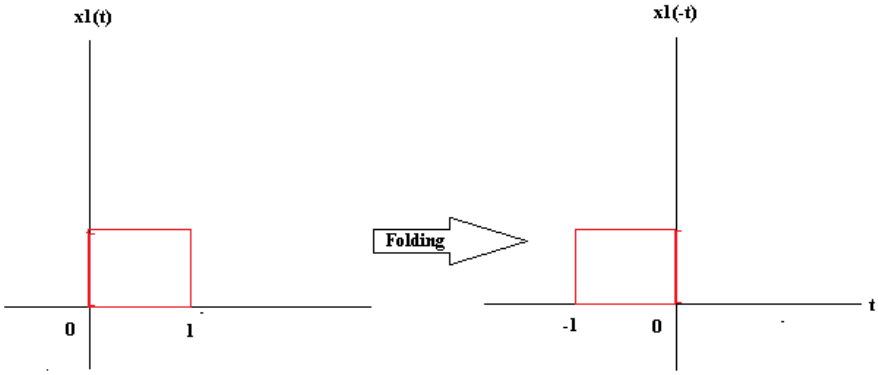
Q# 107 Find convolution integral of $x_1(t) * x_2(t)$



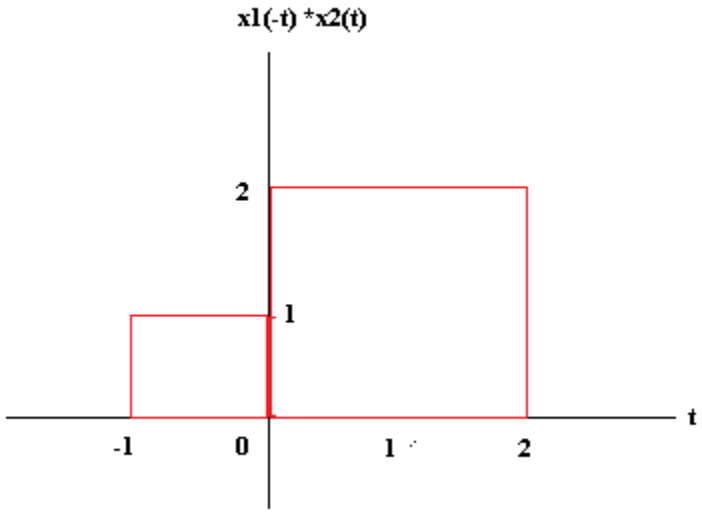


1st time:

i. Folding



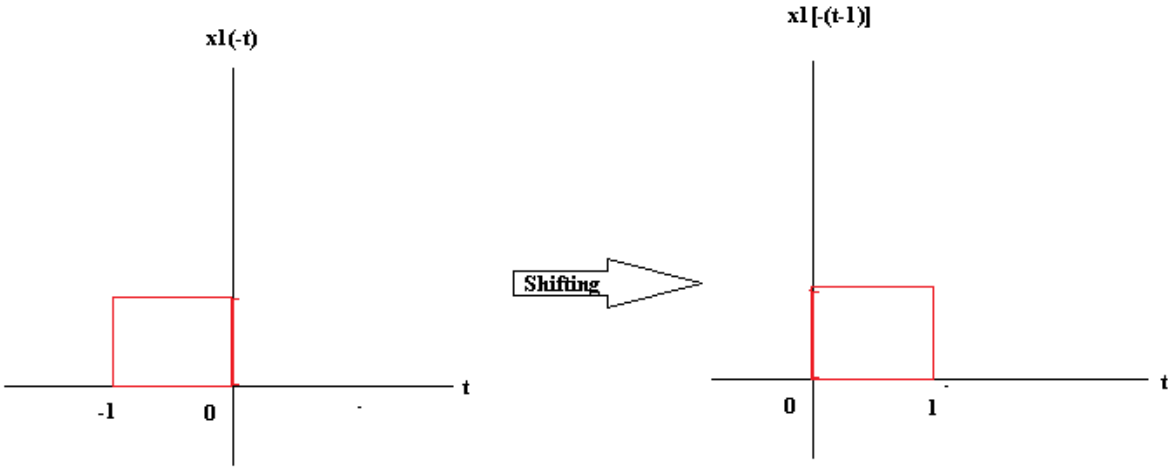
ii. Finding Area



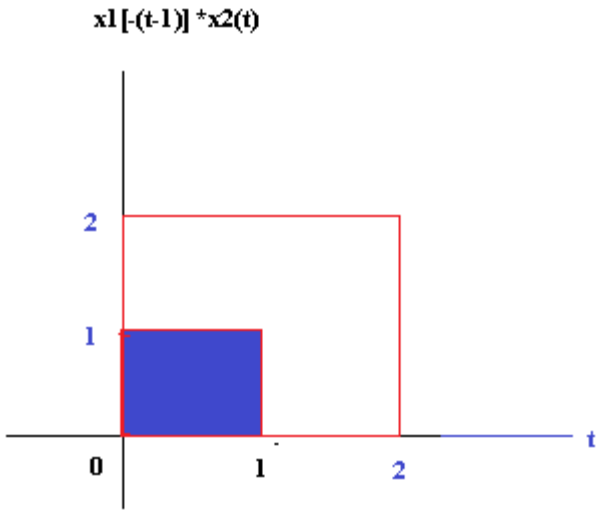
Finding Area: No overlapped area; x[0] =0

2nd time:

i. Shifting

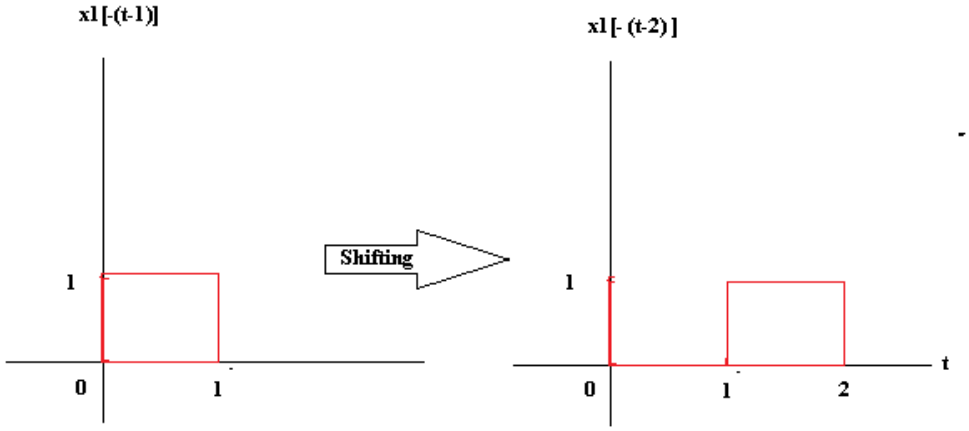


ii. Finding Area:

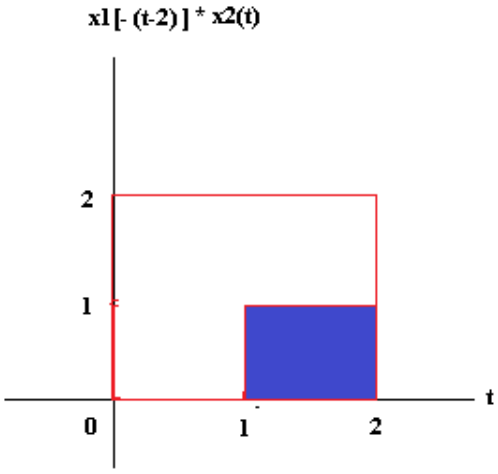


Area: x[1] = $1 \times 1 = 1$

iii. Shifting

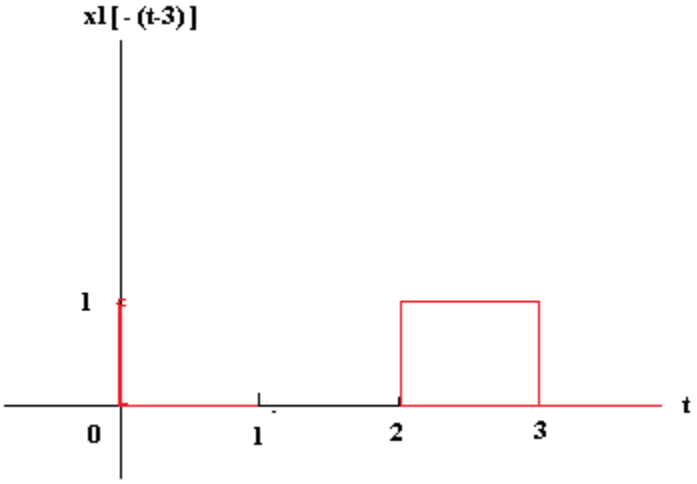


iv. Finding area

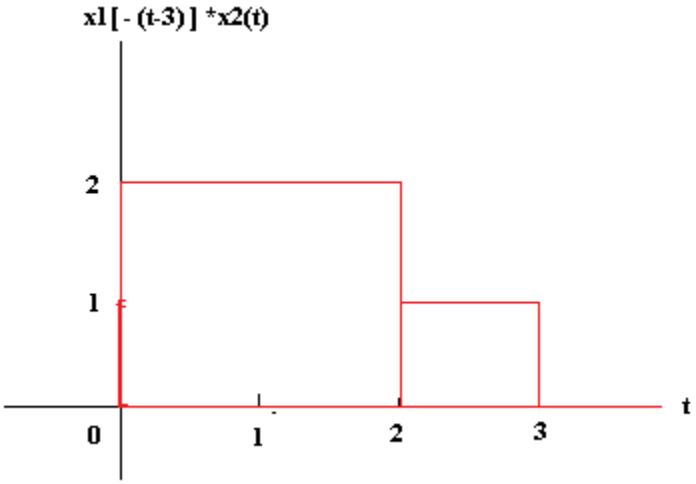


Area: x[2] = $1 \times 1 = 1$

v. Shifting:

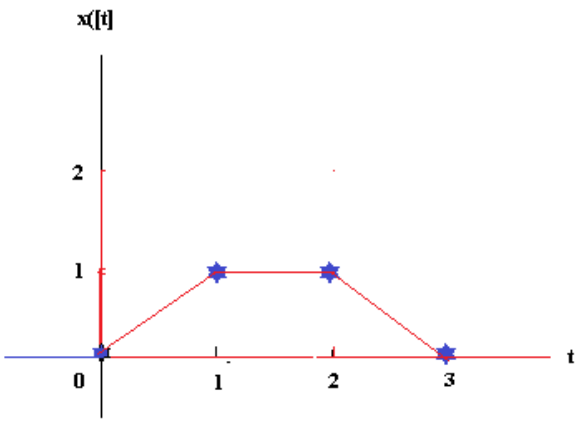


vi. Finding Area:



No overlapped: x [3] =0

Hence the convolution integral is


x[t]
2
1
0
1
2
3
t