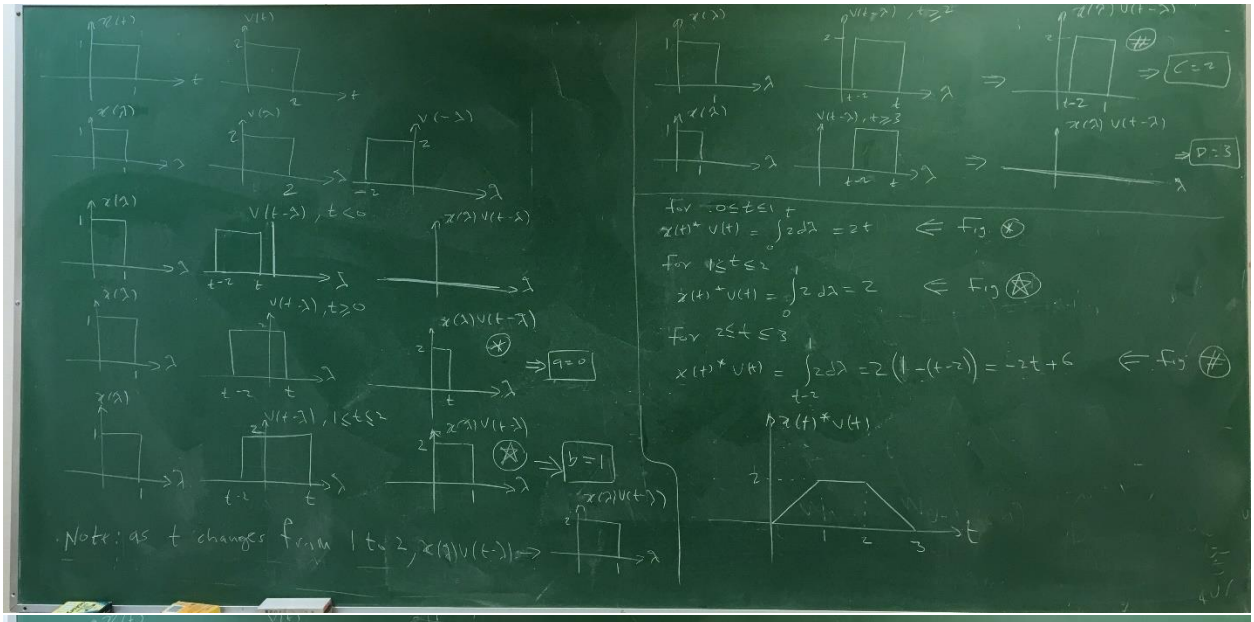
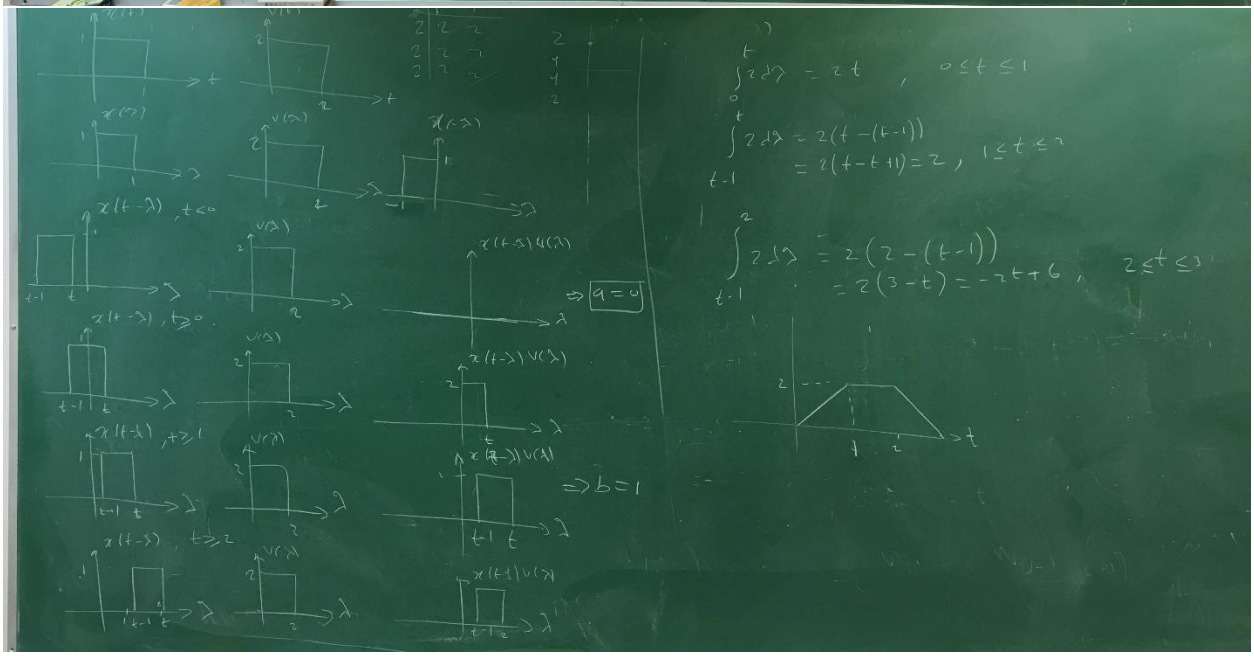

x(t)
v(t)
x(λ)
v(λ)
v(-λ)
v(t-λ), t<0
x(λ)v(t-λ)
v(t-λ), t≥0
x(λ)v(t-λ)
⇒ a=0
v(t-λ), 1≤t≤2
x(λ)v(t-λ)
⇒ b=1
Note: as t changes from 1 to 2, x(λ)v(t-λ) ⇒
x(λ)v(t+λ), t≥2
⇒ c=2
x(λ)v(t-λ)
v(t-λ), t≥3
⇒ d=3
for 0≤t≤1
x(t)*v(t) = ∫ 2 dλ = 2t ⇐ fig ⊛
for 1≤t≤2
x(t)*v(t) = ∫ 2 dλ = 2 ⇐ fig ✡
for 2≤t≤3
x(t)*v(t) = ∫ 2 dλ = 2(1-(t-2)) = -2t+6 ⇐ fig #
x(t)*v(t)
t
1
2
3


x(t)
v(t)
x(λ)
v(λ)
x(-λ)
x(t-λ), t<0
x(t-λ)v(λ)
⇒ a=0
x(t-λ), t≥0
x(t-λ)v(λ)
x(t-λ), t≥1
x(t-λ)v(λ)
⇒ b=1
x(t-λ), t≥2
x(t-1)v(λ)
∫ 2 dλ = 2t, 0≤t≤1
∫ 2 dλ = 2(t-(t-1))
= 2(t-t+1) = 2, 1≤t≤2
∫ 2 dλ = 2(2-(t-1))
= 2(3-t) = -2t+6, 2≤t≤3
t
1
2