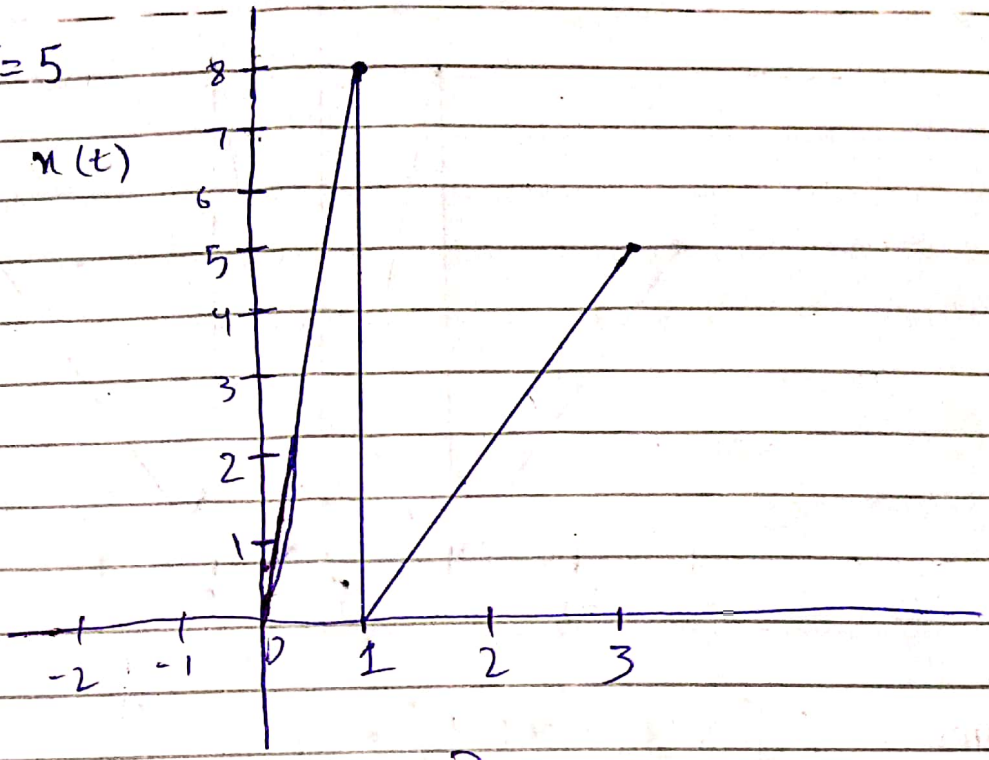
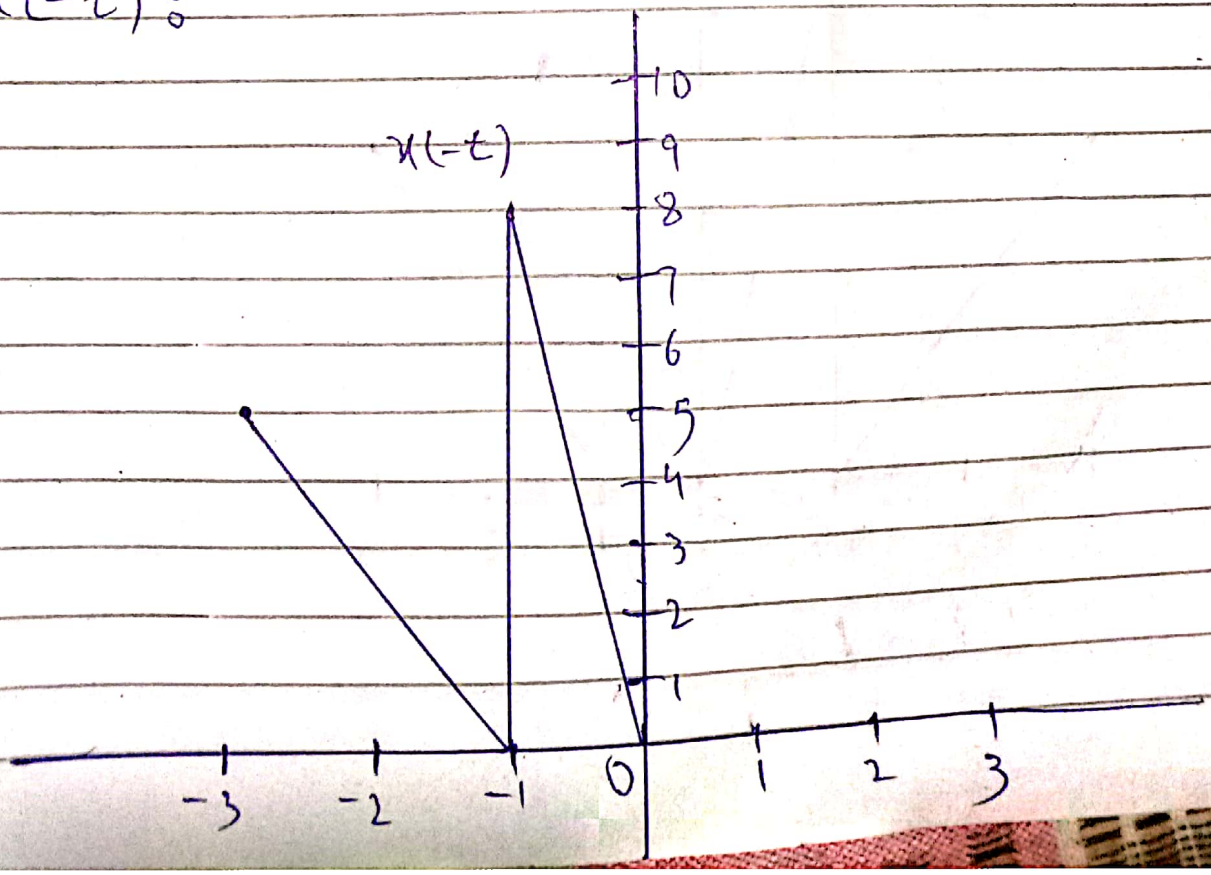
U = 8
T = 5

Q1: U = 8 , T = 5

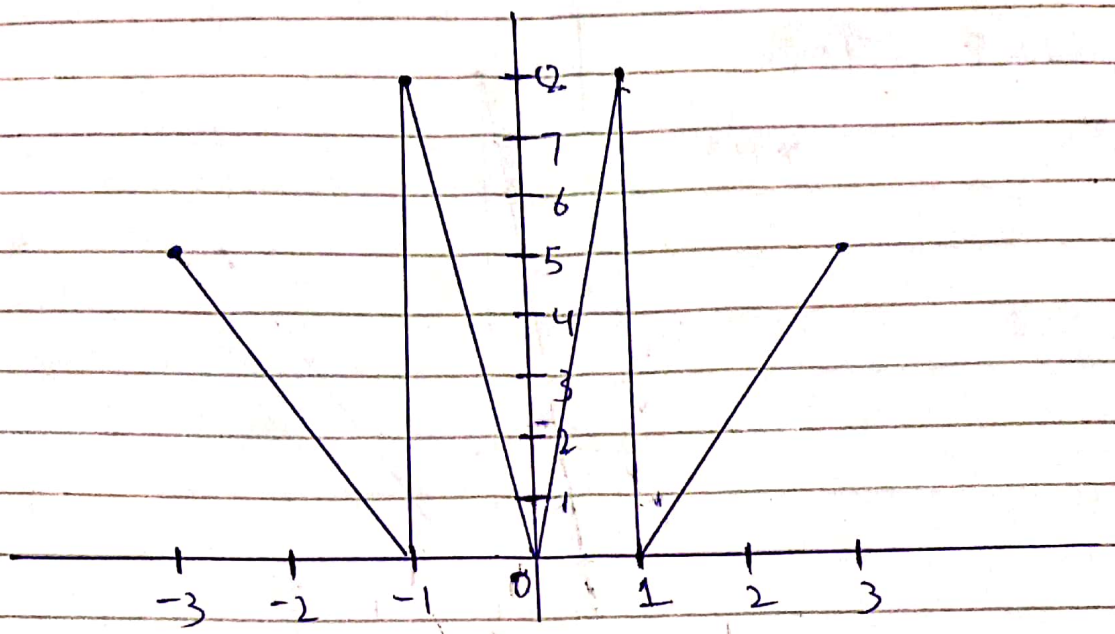


For even: $\frac{1}{2}[x(t) + x(-t)]$

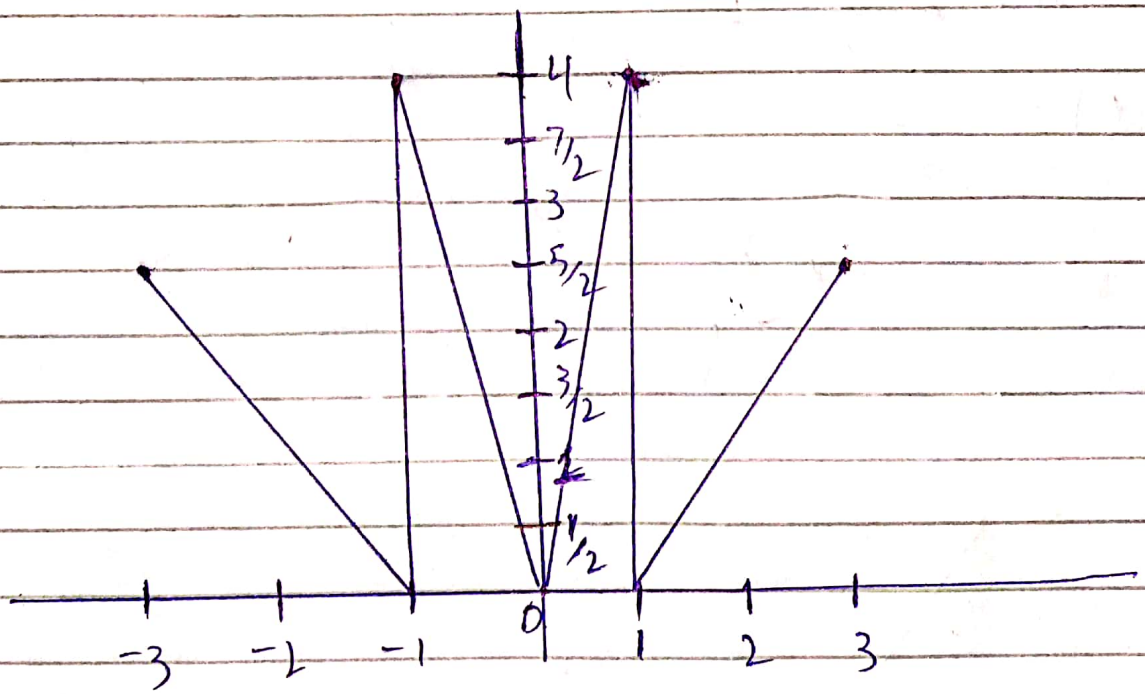
x(-t):



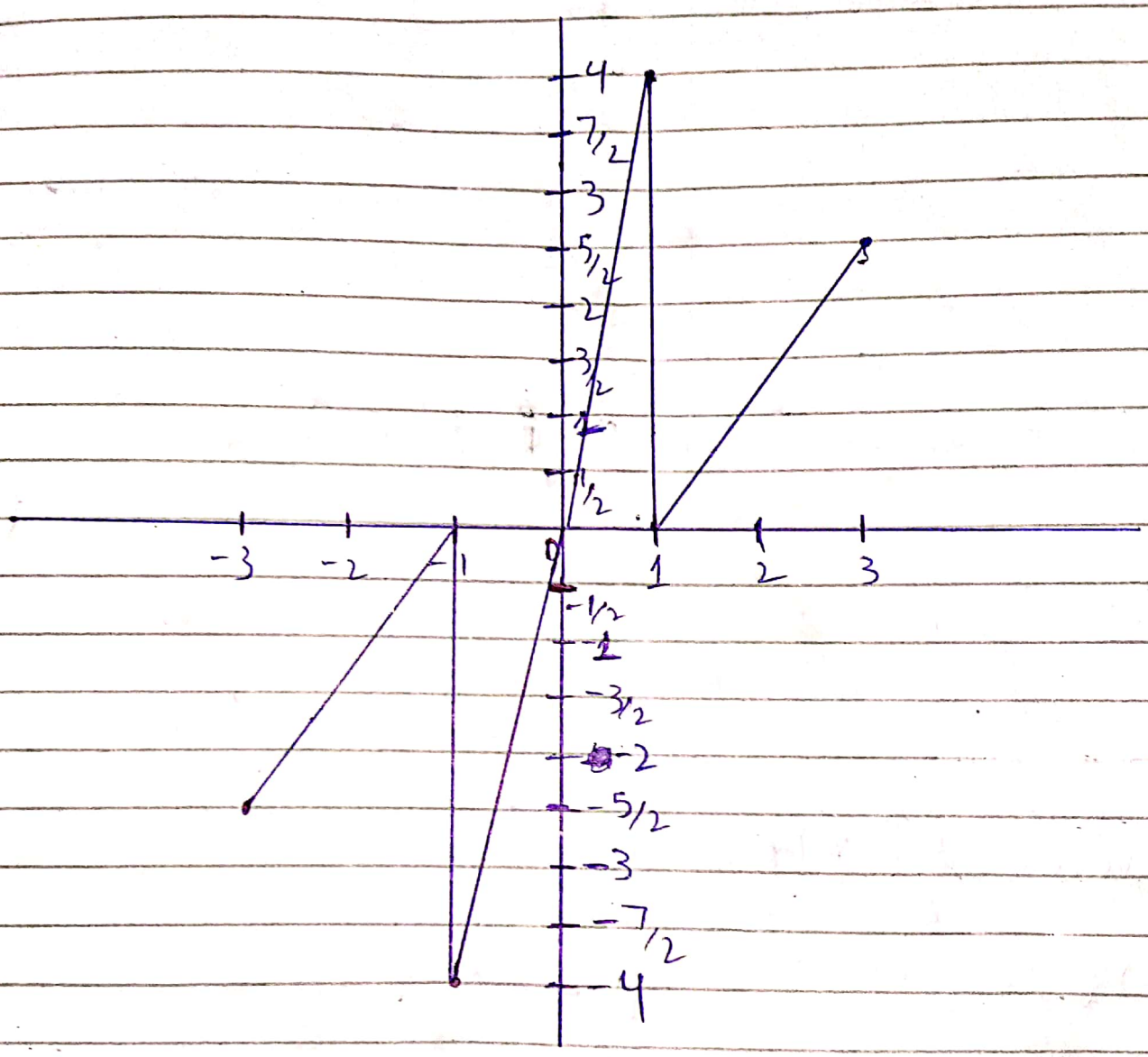
$x(t) + x(-t)$:



Even $= \frac{1}{2}[x(t) + x(-t)]$:

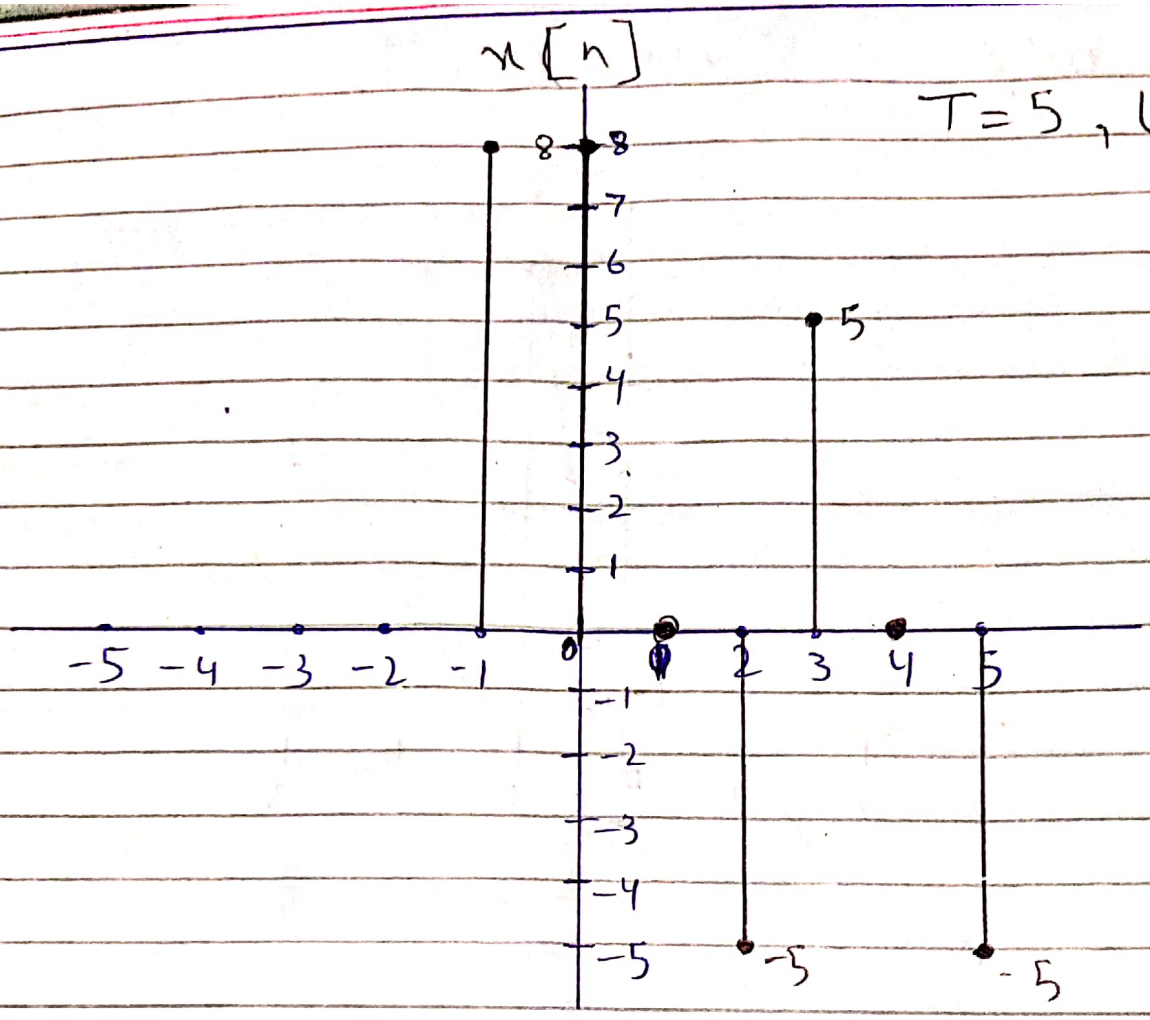


For odd : $\frac{1}{2}[x(t) - x(-t)]$:



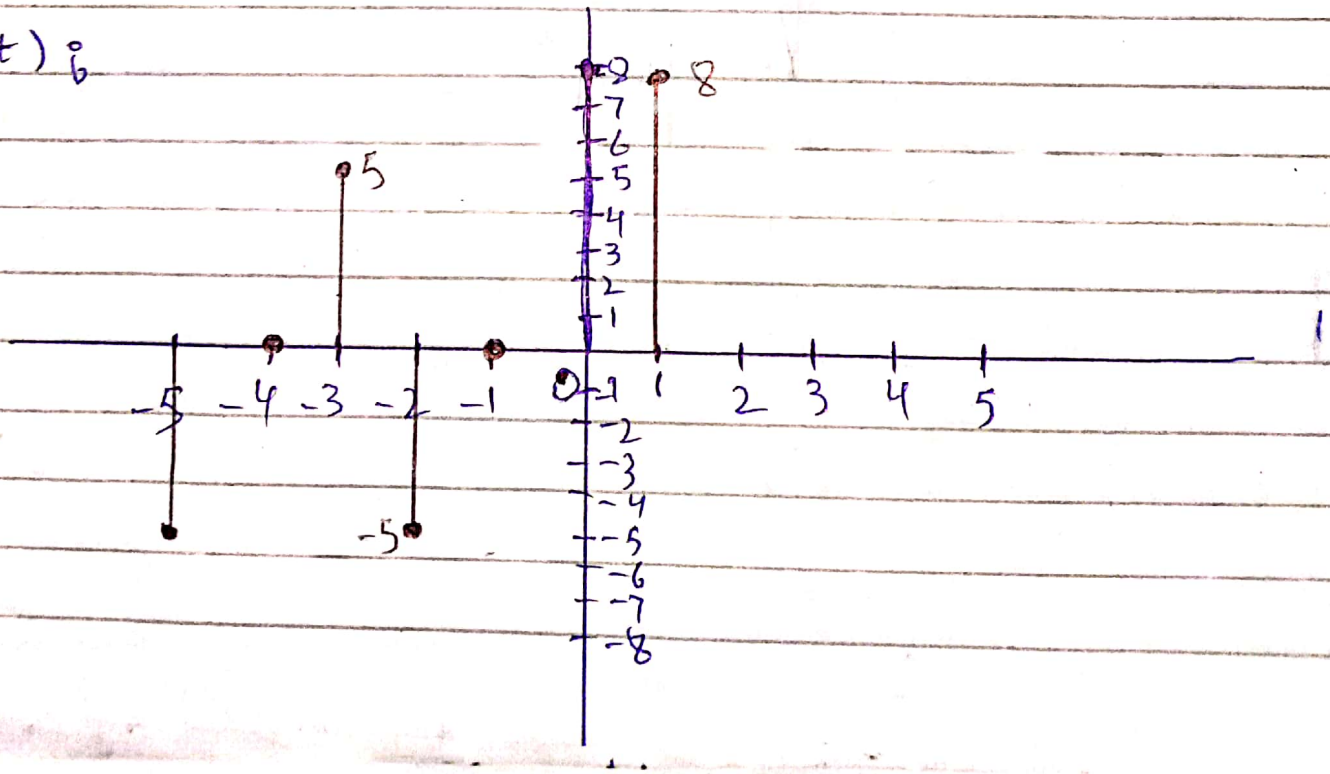
(a) / (b)

T = 5 , U = 8

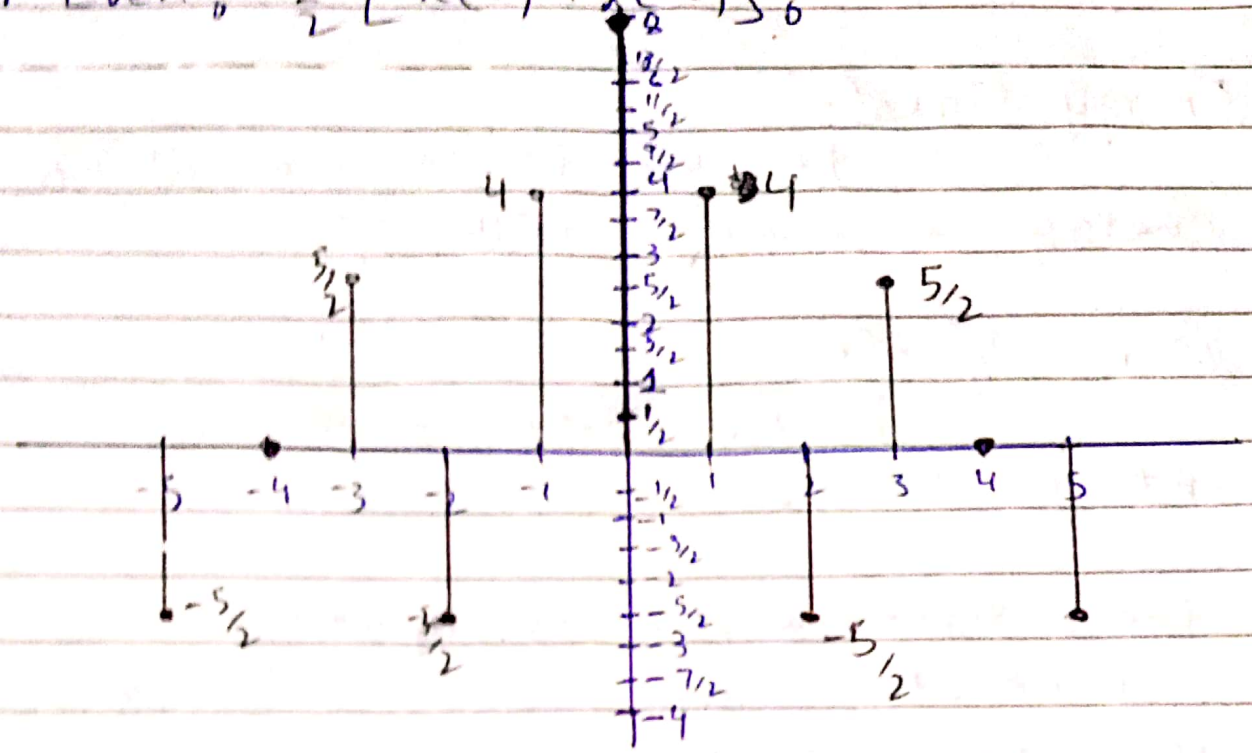


For Even : $\frac{1}{2}[x(-t) + x(-t)]$

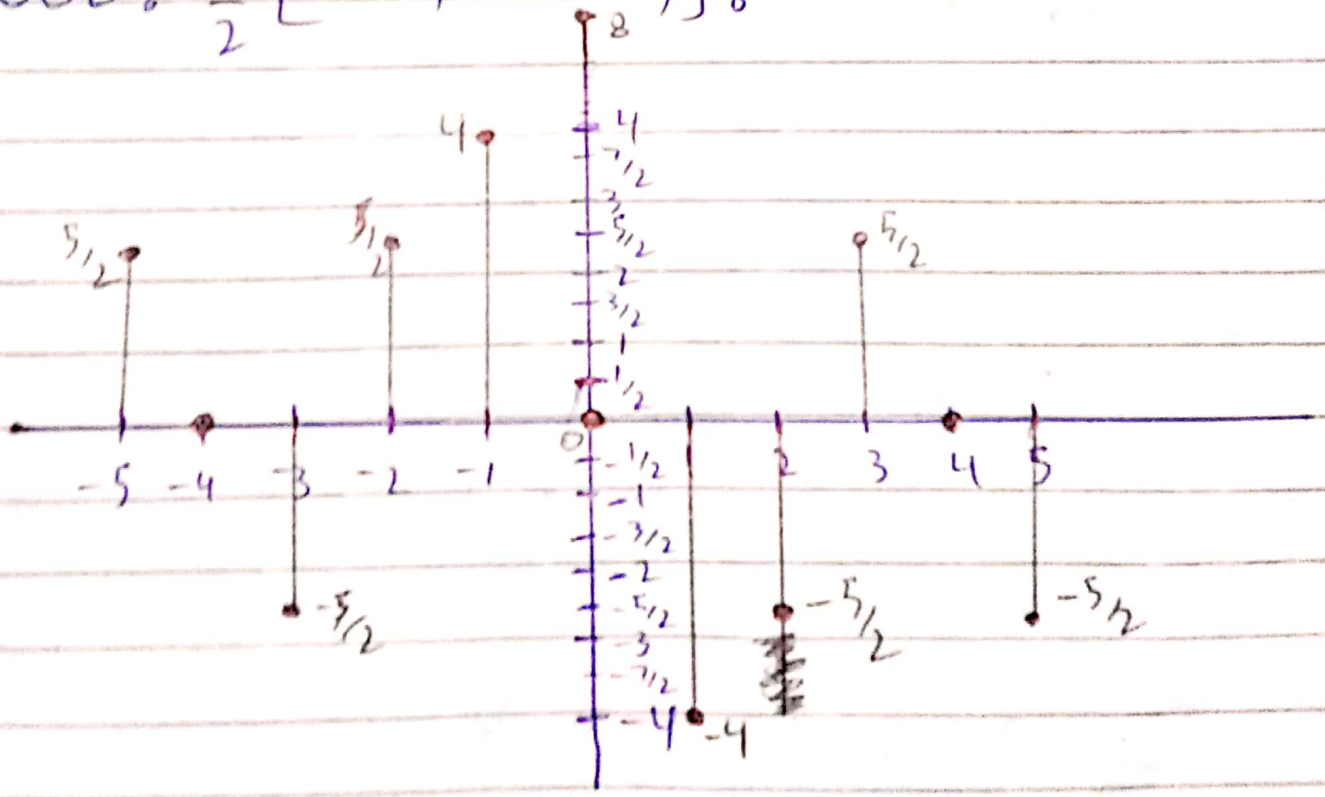
x(-t) :



For Even : $\frac{1}{2}[x(t) + x(-t)]$:



For Odd : $\frac{1}{2}[x(t) - x(-t)]$:



(Q2)

(Ans) Energy Signal:

It has finite amount of energy associated with it.

Power Signal:

It has finite power for each point in time.

=> If the signal energy is in one period is finite, then both power and total energy are infinite. The signal is neither energy signal nor a power signal.