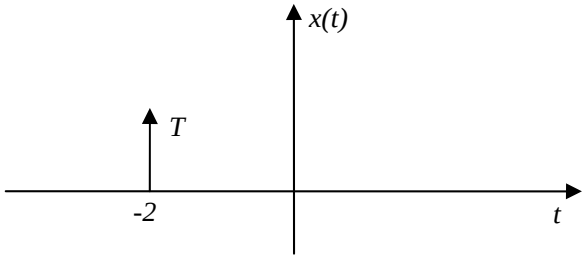
Applied Signal Processing and Computer Science

WS 10/11(Email: xiaoxiang.zhu@bv.tum.de)

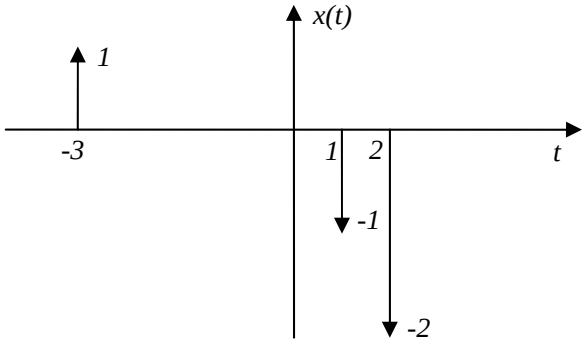
Solution 2: Delta and Step Functions

1.1 Plot the following signals:

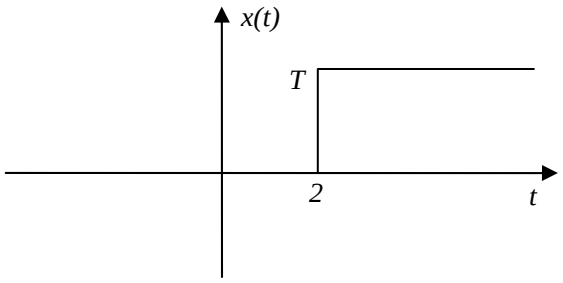
- $x(t) = T\delta(t+2)$



- $x(t) = \delta(t+3) - 2\delta(t-2) - \delta(t-1)$



- $x(t) = T\gamma(t-2)$



1.2 $\int_{-\infty}^{\infty} u(t)\delta(t-t_0)dt = \int_{-\infty}^{\infty} u(t_0)\delta(t-t_0)dt = u(t_0)\int_{-\infty}^{\infty} \delta(t-t_0)dt = u(t_0)$

1.3

- e^2
- 0