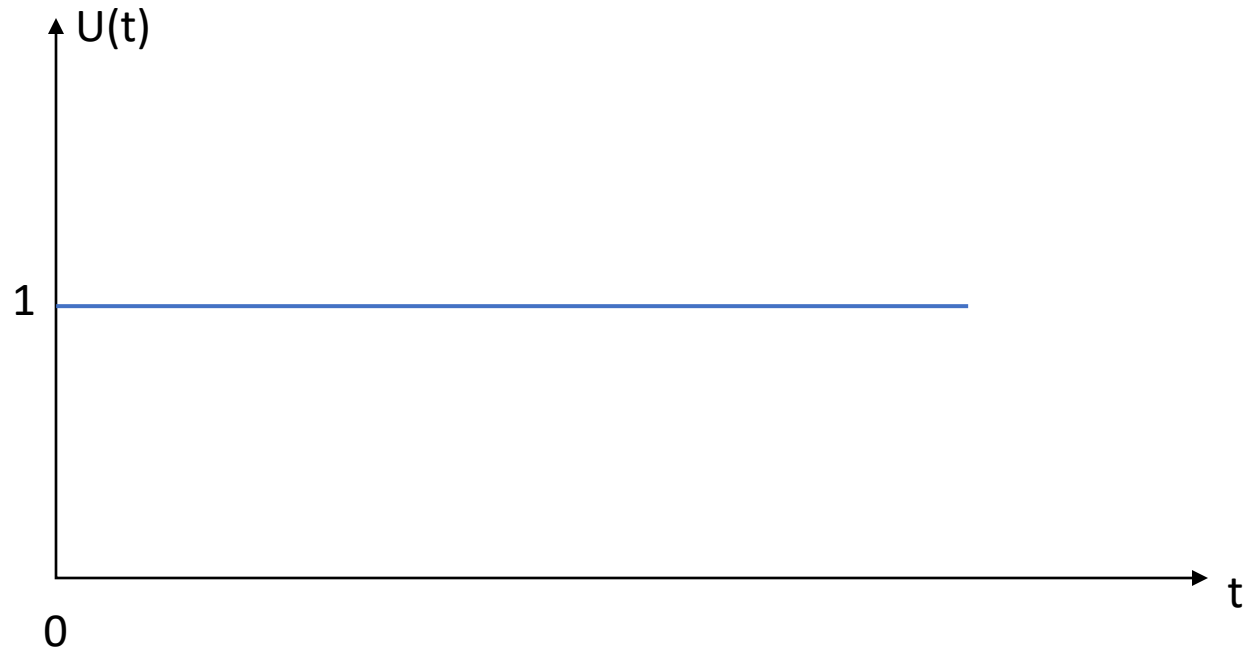


Standard test signals

Standard test signals

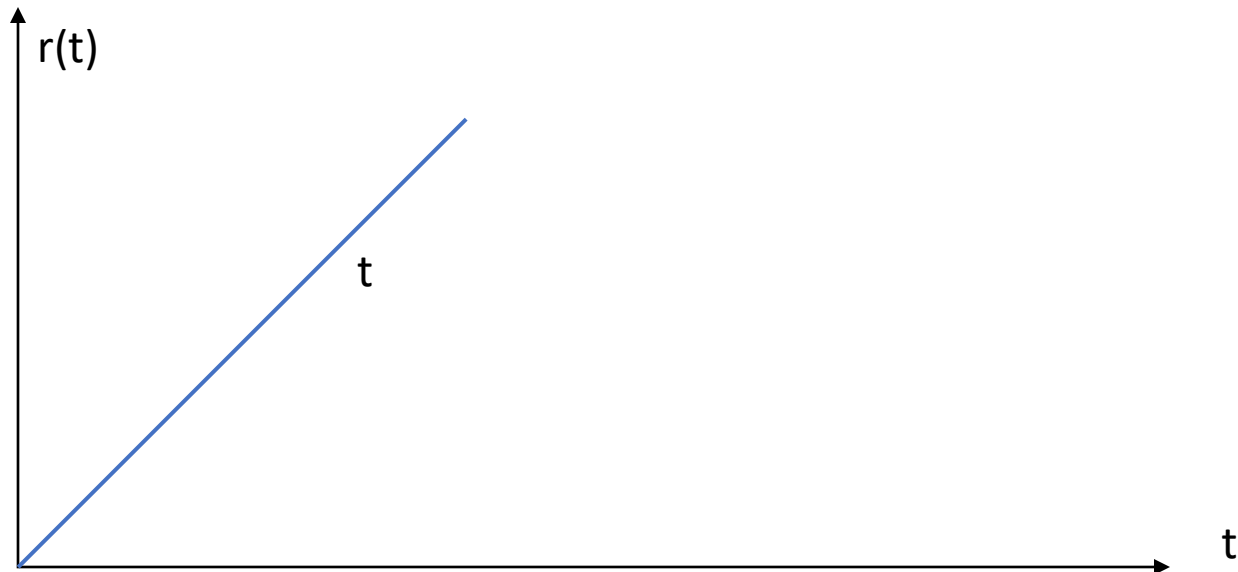
Unit Step signal: $u(t) = \begin{cases} 0; & t < 0 \\ 1; & t \geq 0 \end{cases}$



Standard test signals

Ramp signal:

$$r(t) = \begin{cases} 0; & t < 0 \\ t; & t \geq 0 \end{cases}$$



Standard test signals

Impulse signal: $\delta(t) = \begin{cases} 0; & t \neq 0 \\ 1; & t = 0 \end{cases}$

The area of the unit impulse signal is equal to one. In practical case, when a large amplitude (let a) occurs for a very short duration (let $1/a$) then the area of the rectangular pulse is unity, that's called impulse function.

- $\int_{-\infty}^{\infty} \delta(t) dt = 1$

