

BASIC SIGNALS

Unit Impulse signal:

$$\delta(t) = 1 \text{ for } t=0;$$
$$= 0 \text{ otherwise}$$

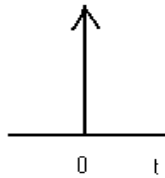


Figure 1.9

Unit step signal:

$$U(n) = 1 \text{ for } t > 0;$$
$$= 0 \text{ for } t < 0;$$

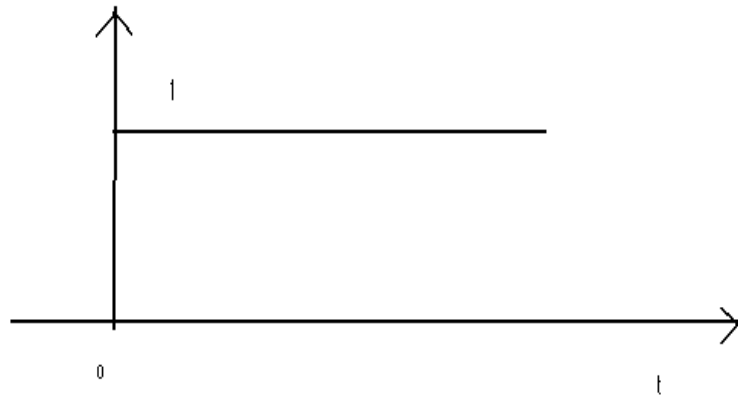


Figure 1.10

Signum function:

1 for $t > 0$

$\text{Sgn}(t) =$

-1 for $t < 0$

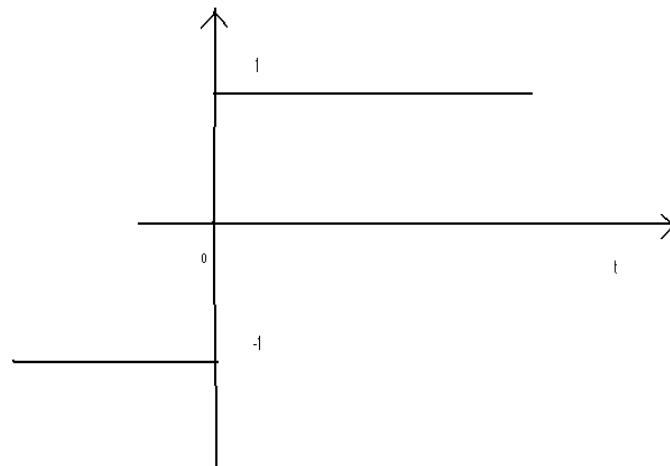


Figure 1.11

Exponential increasing function:

$$X(t) = e^t$$

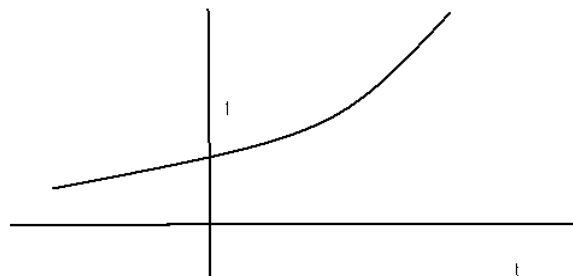


Figure 1.12

Exponential decreasing function:

$$X(t) = e^{-t}$$

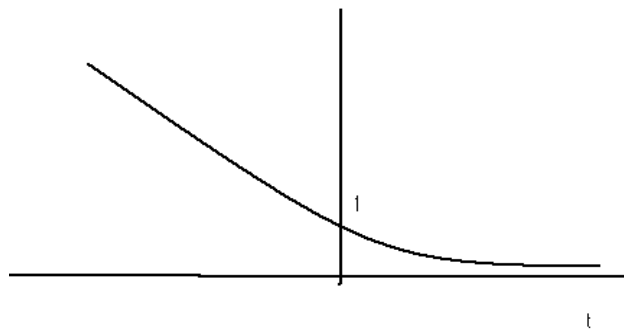


Figure 1.13