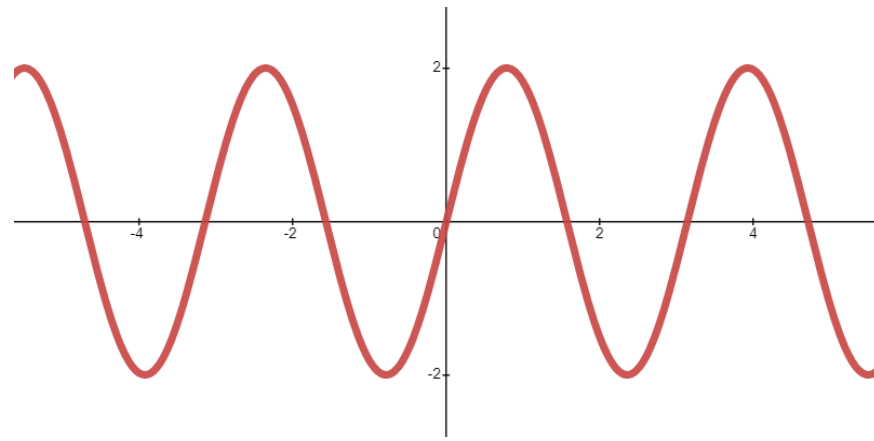
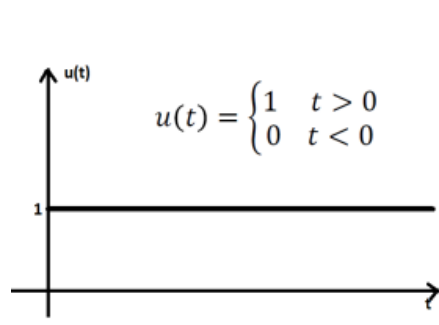


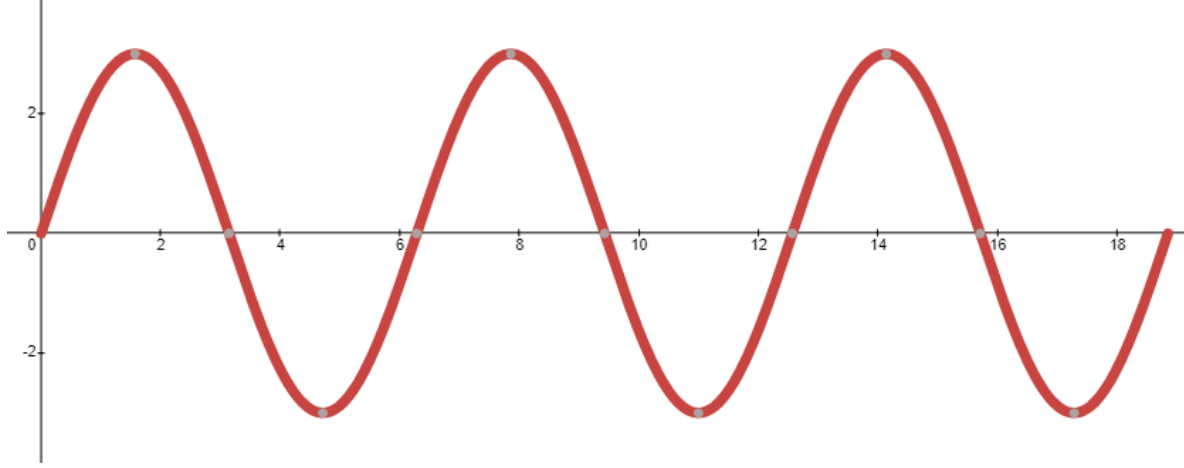
İşaret ve sistemler çalışma soruları



$$2 \cos\left(2x + \frac{3\pi}{2}\right)$$

f(t)u(1-t) grafiğini çiziniz

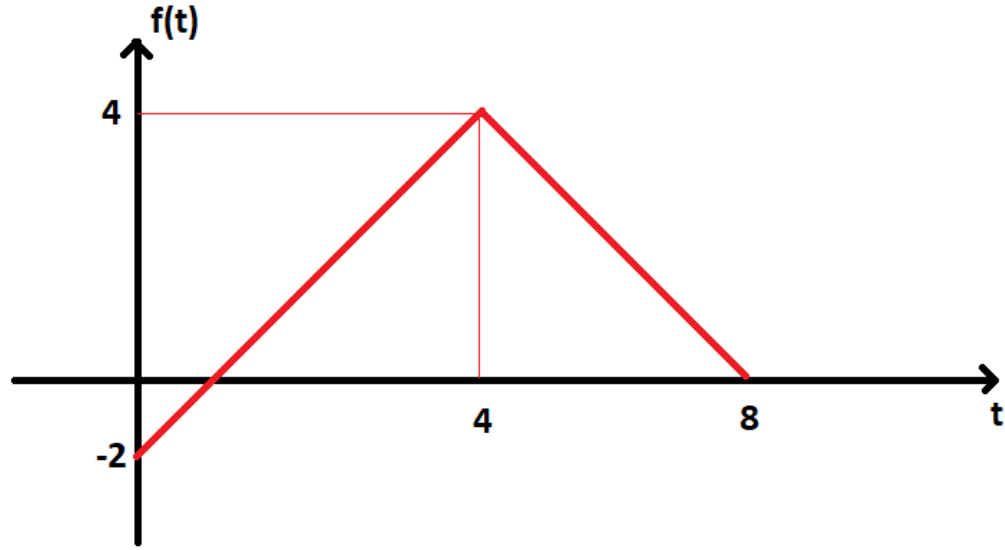
Sinüzoidal bir işaret olduğu için birebir çizebilirsiniz. Dikkat etmenizi istediğim nokta genlik değeri ve aksi belirtilmediği takdirde sinüs ve kosinüsün sıfır olduğunda eksenlerdeki durumudur.



$$f(x) = 3 \sin(x) \quad \{0 < x < 6\pi\}$$

$f(x)$ sürekli zamanlı işareti verilmiştir.
Örnekleme frekansı $\pi/2$ olacak şekilde işareti
ayrık işarete çeviriniz.

Elde ettiğiniz işaretin toplam gücünü bulunuz



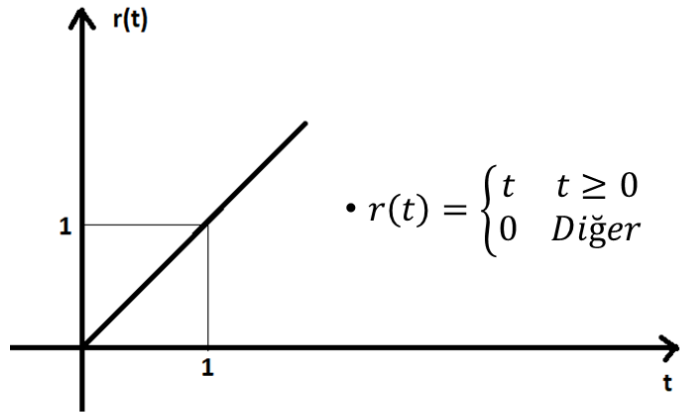
Aşağıdaki işaretlerin grafiğini çiziniz.

a) $f(t-2)$

b) $f(t+3)$

c) $f(t/2)$

- $f(t) = \cos(\pi/5 t) + \sin(2\pi/9 t)$ Sinüzoidal işareti için işaret periyodik midir ve frekansı nedir?



$$\bullet r(t) = \begin{cases} t & t \geq 0 \\ 0 & \text{Diğer} \end{cases}$$

$$\bullet f(t) = \delta(t+2) + \delta(t-3)$$

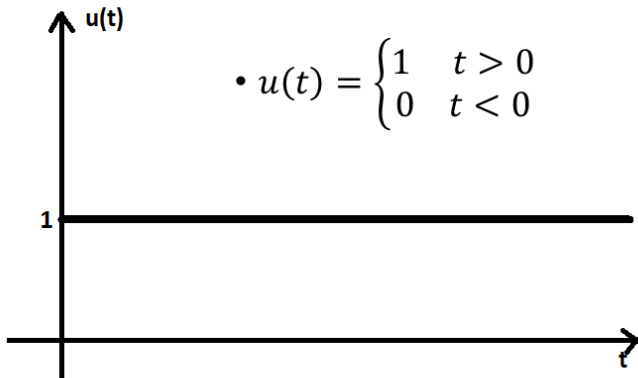
$$\bullet f(t) = -\delta(t+2) + \delta(t)$$

$$\bullet f(t) = u(t-3)$$

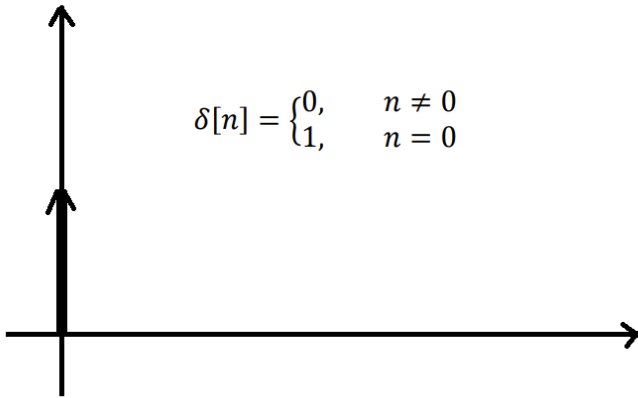
$$\bullet f(t) = \delta(t+1) + u(t-1)$$

$$\bullet f(t) = r(t-3)$$

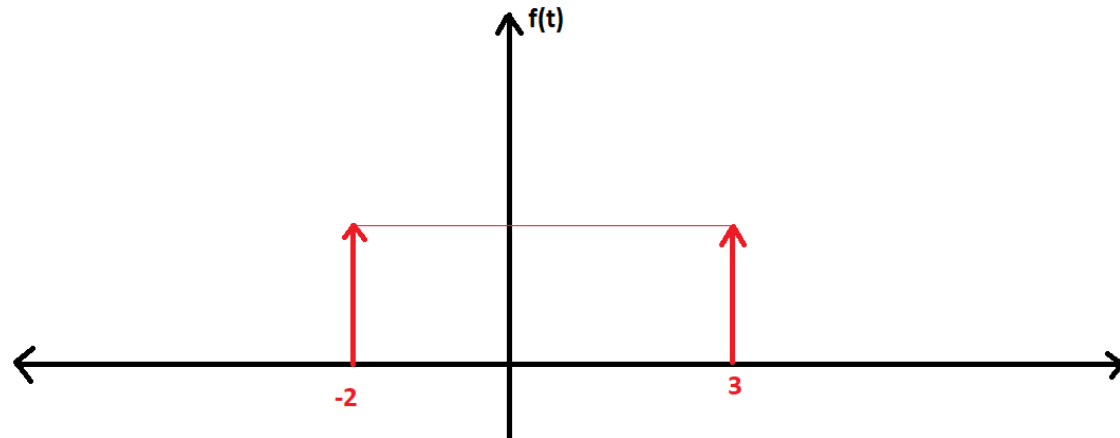
$$\bullet f(t) = \delta(t-3) + r(t-1)$$

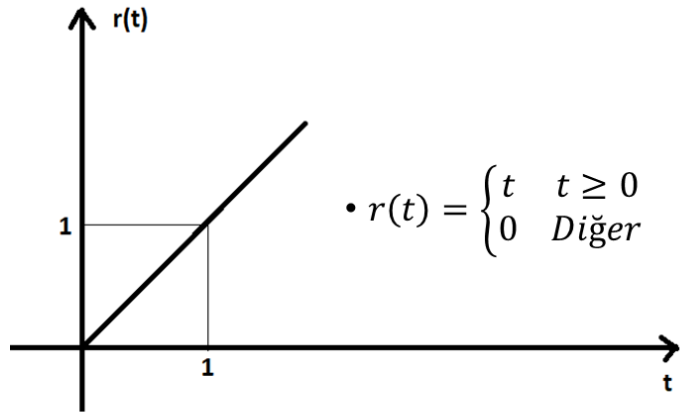


$$\bullet u(t) = \begin{cases} 1 & t > 0 \\ 0 & t < 0 \end{cases}$$



$$\delta[n] = \begin{cases} 0, & n \neq 0 \\ 1, & n = 0 \end{cases}$$





- $f(t) = \delta(t+2) + \delta(t-3)$

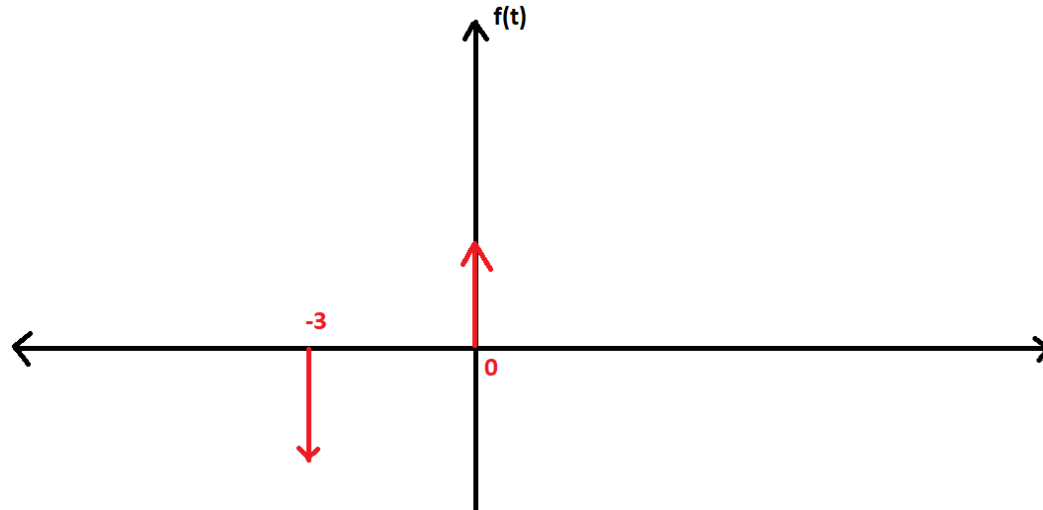
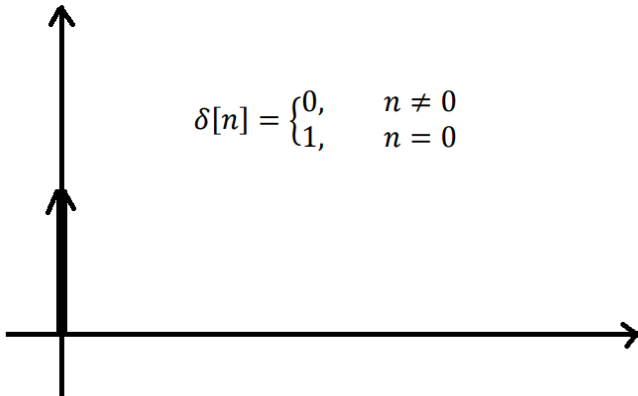
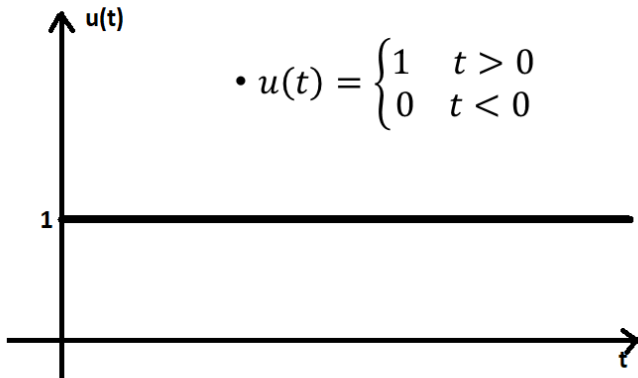
- $f(t) = -\delta(t+2) + \delta(t)$

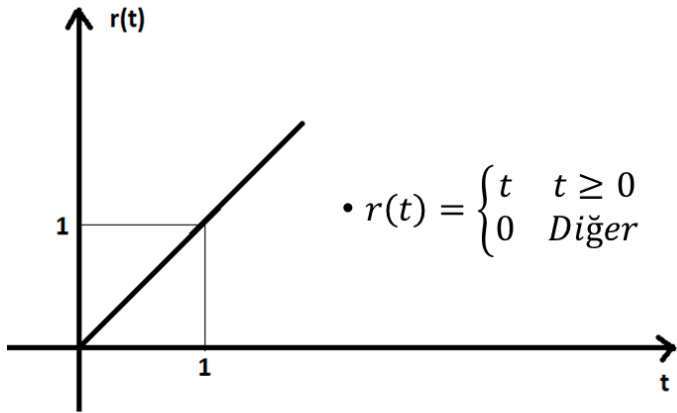
- $f(t) = u(t-3)$

- $f(t) = \delta(t+1) + u(t-1)$

- $f(t) = r(t-3)$

- $f(t) = \delta(t-3) + r(t-1)$





$$\bullet r(t) = \begin{cases} t & t \geq 0 \\ 0 & \text{Diğer} \end{cases}$$

$$\bullet f(t) = \delta(t+2) + \delta(t-3)$$

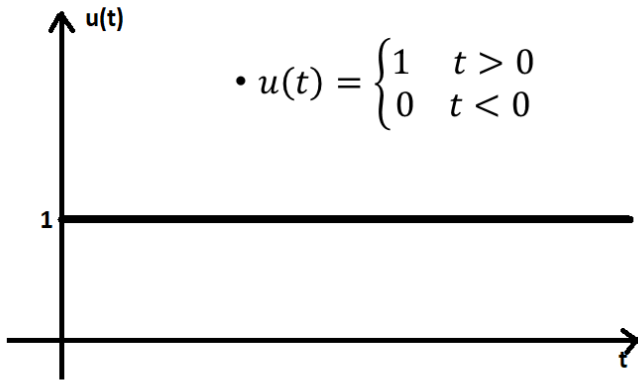
$$\bullet f(t) = -\delta(t+2) + \delta(t)$$

$$\bullet f(t) = u(t-3)$$

$$\bullet f(t) = \delta(t+1) + u(t-1)$$

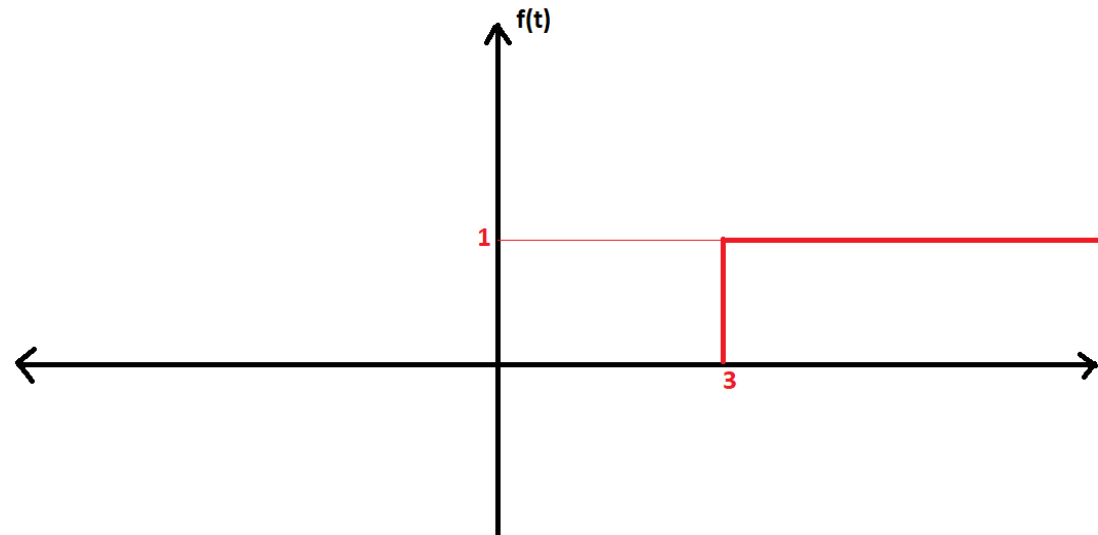
$$\bullet f(t) = r(t-3)$$

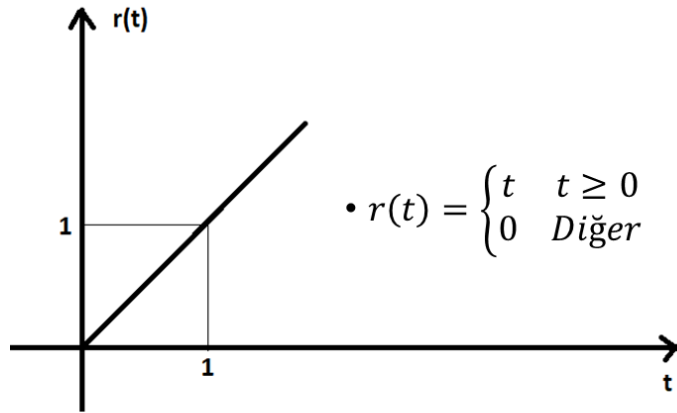
$$\bullet f(t) = \delta(t-3) + r(t-1)$$



$$\bullet u(t) = \begin{cases} 1 & t > 0 \\ 0 & t < 0 \end{cases}$$

$$\delta[n] = \begin{cases} 0, & n \neq 0 \\ 1, & n = 0 \end{cases}$$





- $f(t) = \delta(t+2) + \delta(t-3)$

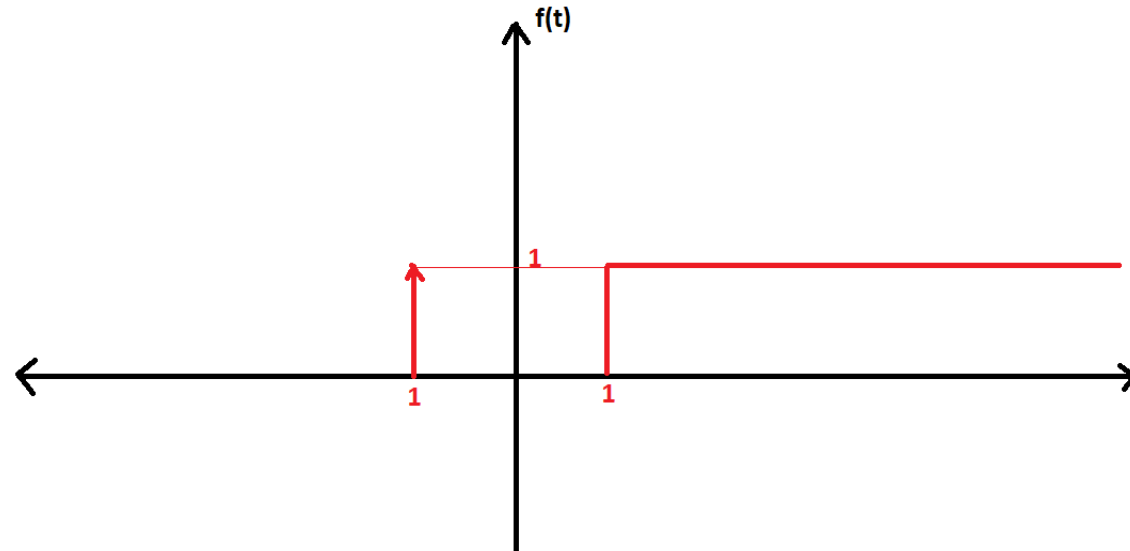
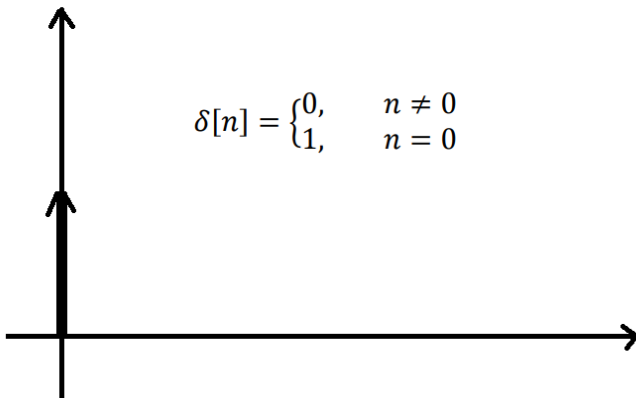
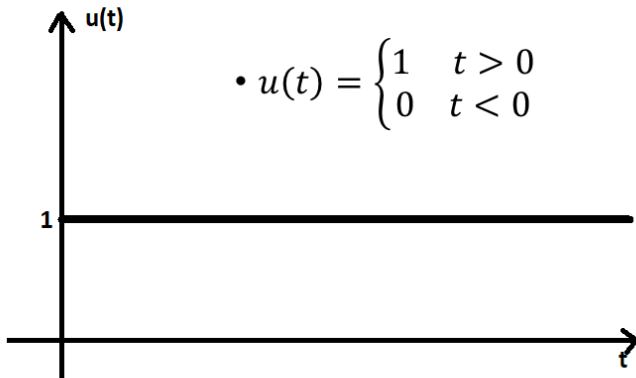
- $f(t) = -\delta(t+2) + \delta(t)$

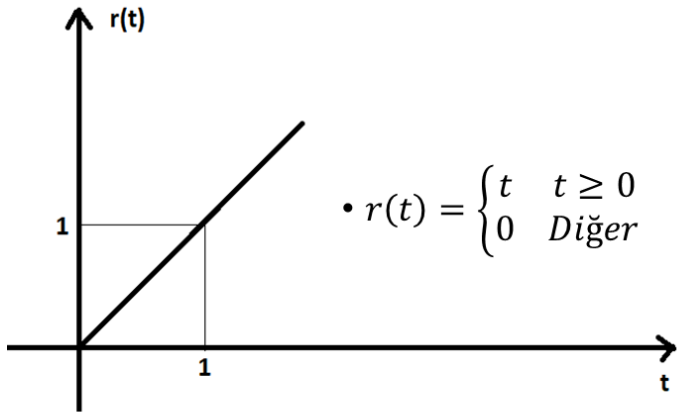
- $f(t) = u(t-3)$

- $f(t) = \delta(t+1) + u(t-1)$

- $f(t) = r(t-3)$

- $f(t) = \delta(t-3) + r(t-1)$





$$\bullet r(t) = \begin{cases} t & t \geq 0 \\ 0 & \text{Diğer} \end{cases}$$

$$\bullet f(t) = \delta(t+2) + \delta(t-3)$$

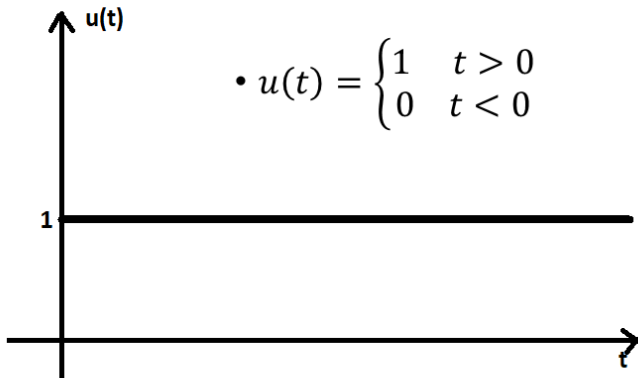
$$\bullet f(t) = -\delta(t+2) + \delta(t)$$

$$\bullet f(t) = u(t-3)$$

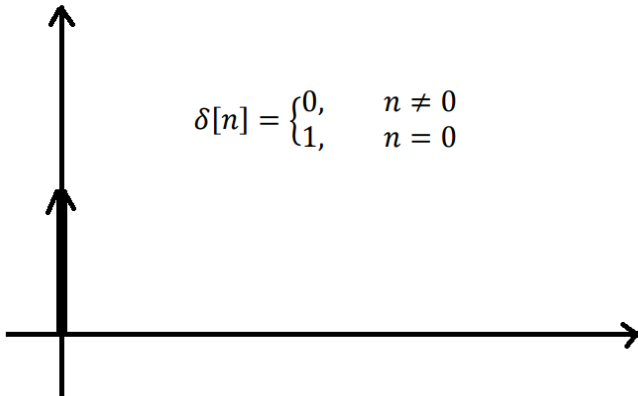
$$\bullet f(t) = \delta(t+1) + u(t-1)$$

$$\bullet f(t) = r(t-3)$$

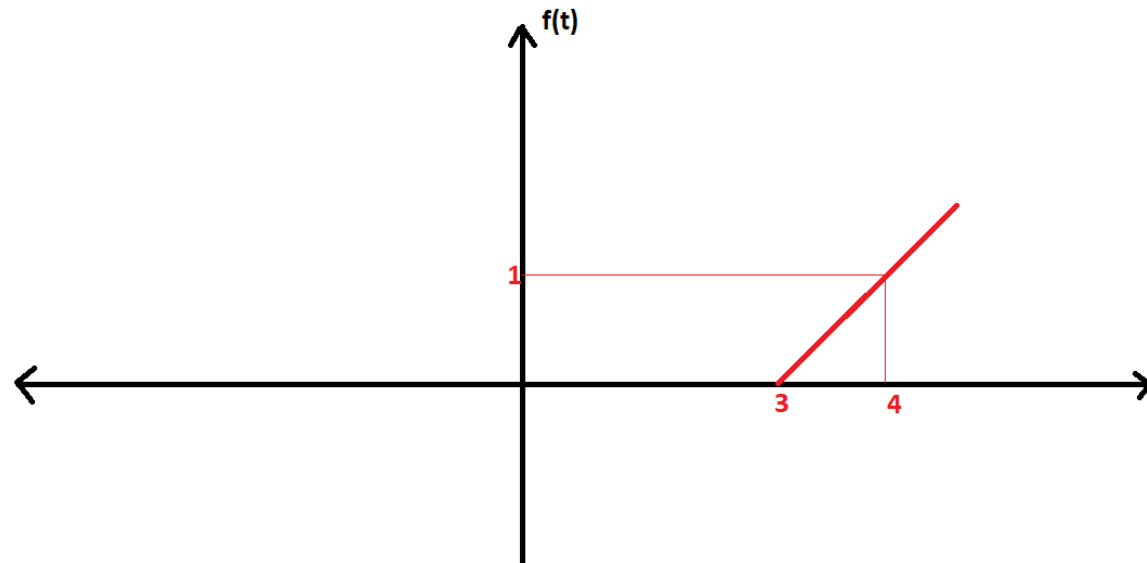
$$\bullet f(t) = \delta(t-3) + r(t-1)$$

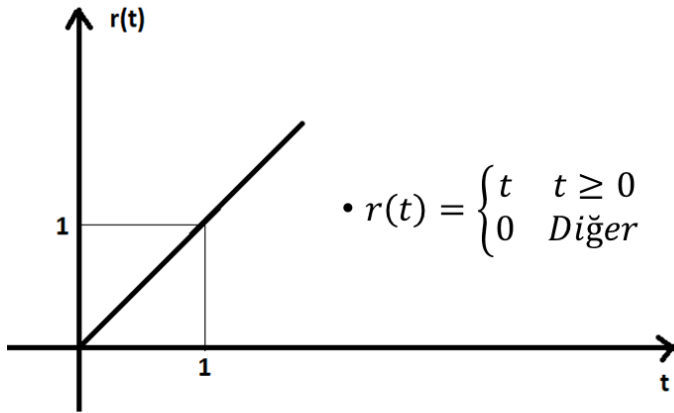


$$\bullet u(t) = \begin{cases} 1 & t > 0 \\ 0 & t < 0 \end{cases}$$



$$\delta[n] = \begin{cases} 0, & n \neq 0 \\ 1, & n = 0 \end{cases}$$





- $f(t) = \delta(t+2) + \delta(t-3)$

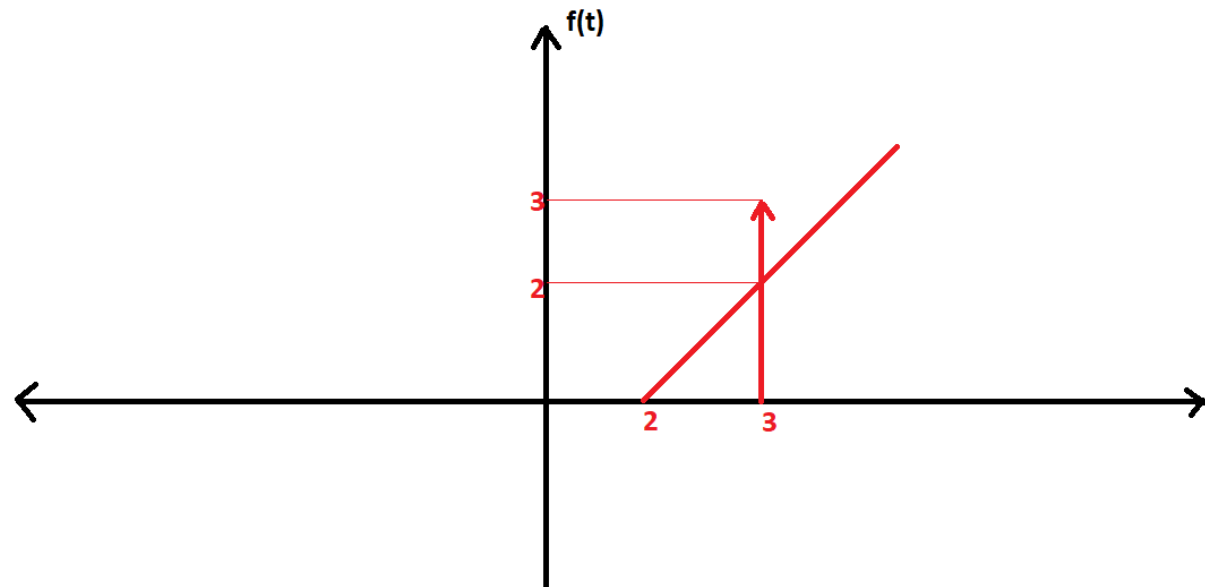
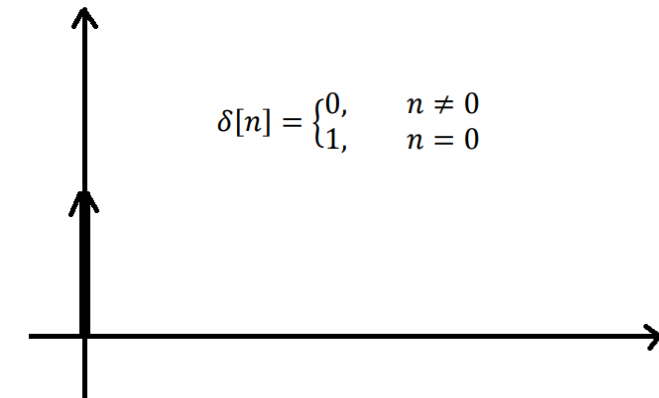
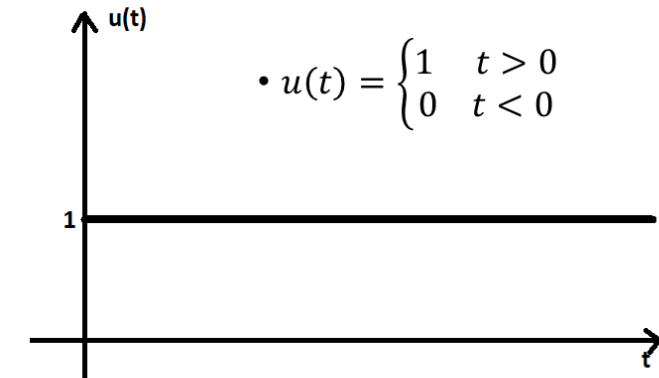
- $f(t) = -\delta(t+2) + \delta(t)$

- $f(t) = u(t-3)$

- $f(t) = \delta(t+1) + u(t-1)$

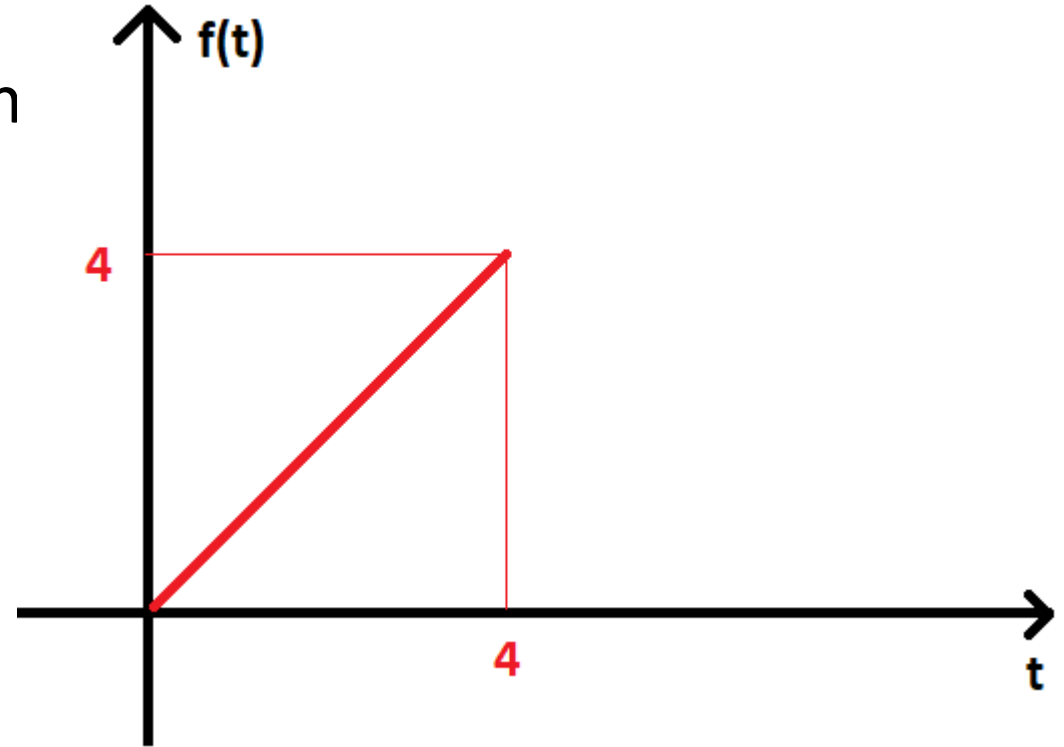
- $f(t) = r(t-3)$

- $f(t) = \delta(t-3) + r(t-1)$



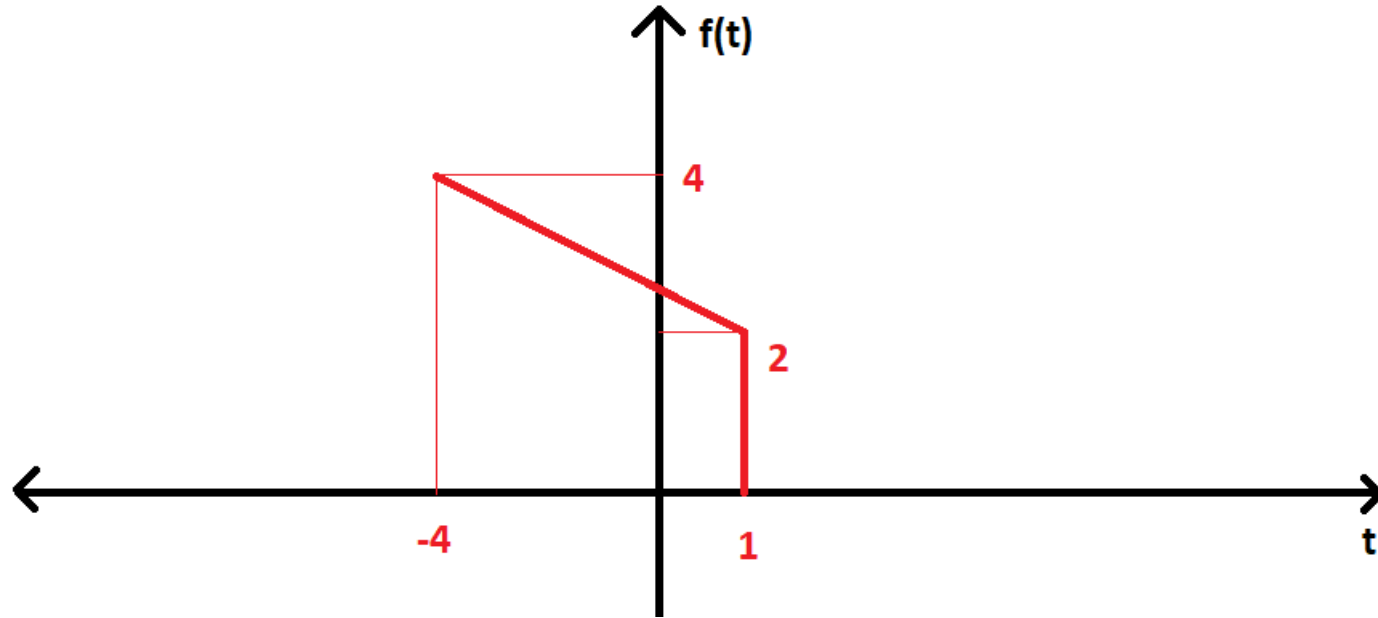
Örnek

- Grafiği verilen $f(t)$ işaretini kullanarak aşağıdaki işaretleri çiziniz
 - a) $f(t-2)$
 - b) $f(2t)$
 - c) $f(t/2)$
 - d) $f(-t)$



Örnek

$g(t) = -2f(2t+3)$ grafiğini çiziniz



Sınav için önemli not:

- Sınavınızda çoktan seçmeli (test) sorularda olacaktır. Onlar için örnek soru eklemedim.
- Test soruları için sunumlardaki tanımlar ve örneklerle dikkat edin.
- Buradaki sorular örnek amaçlı olup birebir çıkmayacaktır.