

Exercícios

01. Derive:

a) $e^{3t}u(t)$

b) $(\cos 2t)u(t)$

c) $(\sin t)u(t)$

d) $(\sin t)r(t)$

e) $r(t)u(t)$

f) $u(t-5)$

g) $r(t-2)$

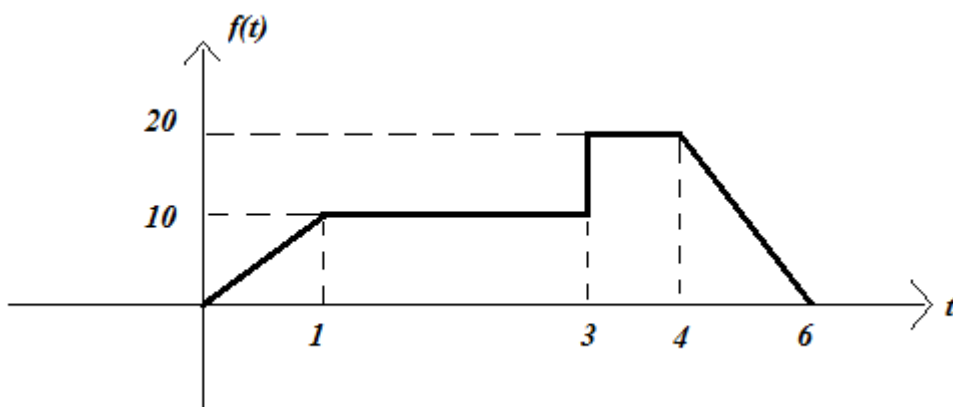
h) $e^{3t}u(t-2)$

i) $(\cos t)u(t-3)$

j) $(t^3 + 5)u(t)$

l) $\cos(t + 60^\circ)\delta(t)$

m)



02. Integre:

$$a) \int_{-5}^3 \cos t u(t) dt$$

$$b) \int_{-5}^1 (t+1)r(t) dt$$

$$c) \int_{-1}^1 \sin t \delta(t-2) dt$$

$$d) \int_{-3}^3 \sin t \delta(t-2) dt$$

$$e) \int_{-1}^1 r(t) \delta(t) dt$$

$$f) \int_0^t e^t (\cos 2t) \delta(t-1) dt$$

$$g) \int_0^t \sin 3t' \delta(t-t') dt'$$

$$h) \int_2^t e^{t'} \delta(t-t') dt'$$

i)

