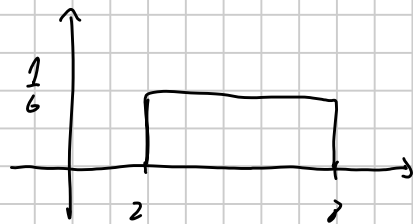


FILA C

el comune deve essere 5 ml/gg

C_1

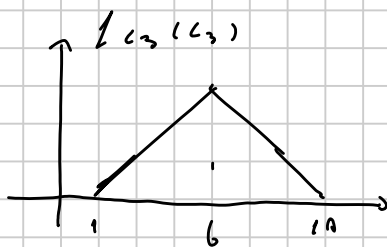
$f_{C_1}(C_1)$



C_2

$$f_{C_2}(C_2) = \frac{1}{6} e^{-C_2/6} u(C_2)$$

C_3



$$P_A = \frac{1}{3} \cdot \frac{2}{6} + \frac{1}{3} \int_0^{\infty} \frac{1}{6} e^{-C_2/6} dC_2 + \frac{1}{3}$$

$$= \frac{1}{9} + \frac{1}{3} (1 - e^{-\infty/6}) + \frac{1}{3} \cdot \frac{3}{2} \cdot \frac{1}{5} (1 - \frac{2}{5})$$

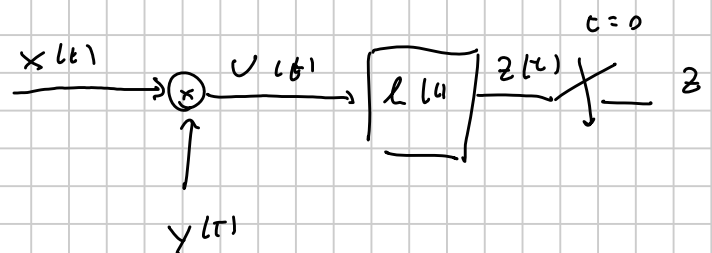
ESERCIZIO 2

$$x(t) = \frac{A}{r} \sin\left(\frac{t}{r}\right) \cos(2\omega_0 t)$$

$$y(t) = \cos(2\omega_0 t + \theta)$$

$$A \in \mathcal{U}(0, 1)$$

$$\theta \in \mathcal{U}(-\pi, \pi)$$



$$u(t) = x(t) y(t) = \frac{A}{r} \sin\left(\frac{t}{r}\right) \cos(2\omega_0 t) \cos(2\omega_0 t + \theta) =$$

$$= \frac{1}{2\pi} A \sin\left(\frac{t}{\tau}\right) \left[\cos(4\pi t_0 t + \theta) \right]$$

$$z(t) = \frac{1}{2\pi} A \sin\left(\frac{t}{\tau}\right) \cos(\theta)$$

$$z(0) = z = \frac{1}{2\pi} A \cos(\theta)$$

$$E\{z\} = E\left\{ \frac{1}{2\pi} A \cos(\theta) \right\} = \frac{1}{2\pi} E\{A\} E\{\cos \theta\} = 0$$

"0"

$$E\{z^2\} = \frac{1}{4\pi^2} E\{A^2\} E\{\cos^2 \theta\} = \frac{1}{4\pi^2} \frac{1}{2} = \frac{1}{8\pi^2}$$

ESERCIZIO 3 | vedi anche A

$$E_s = \frac{1}{2} E_p \left(\frac{9}{2} + \frac{4}{2} \right) + \frac{1}{2} E_p (1)$$

$$= E_p \frac{15}{4} = \frac{15}{4} B$$

$$P_E(b) = \frac{1}{2} Q\left(\frac{3/\sqrt{r}}{\sqrt{N_0 B}}\right) + \frac{1}{2} Q\left(\frac{2/\sqrt{r}}{\sqrt{N_0 B}}\right) + Q\left(\frac{1/\sqrt{r}}{\sqrt{N_0 B}}\right)$$

ESERCIZIO 4 |

1) MO (valori negativi)

2) MO

3) MO LA TRASFORMATA HA TRATTI < 0

