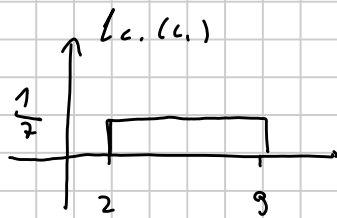


FILA B

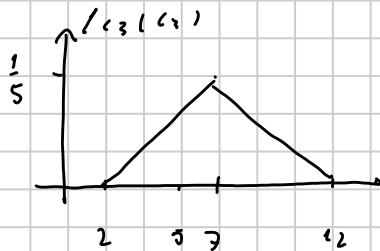
C_1



C_2

$$f_{C_2}(c_2) = \frac{1}{6} e^{-\frac{c_2}{6}} u(c_2)$$

C_3



$$P\{A\} = \frac{1}{3} \cdot \frac{3}{4} + \frac{1}{3} \left[\int_0^5 \frac{1}{6} e^{-\frac{c_2}{6}} dc_2 \right] + \frac{1}{3} \cdot \frac{9}{50}$$

↓

$$\frac{1}{6} \int_0^5 e^{-\frac{c_2}{6}} dc_2 = \left. -\frac{1}{6} e^{-\frac{c_2}{6}} \right|_0^5 = -e^{-\frac{5}{6}} + 1$$

ESERCIZIO 2 | dati: $\mu_A = A$

$$E\{z\} = 0$$

$$E\{z^2\} = E\{A^2\} \cdot \frac{1}{4T^2} E\{\cos^2 \theta\} = \frac{1}{3} \cdot \frac{1}{4T^2} \cdot \frac{1}{2} = \frac{1}{6T^2}$$

$$E\{A^2\} = \frac{1}{2} \int_0^2 A^2 dA = \left. \frac{A^3}{3} \right|_0^2 = \frac{8}{3}$$

ESERCIZIO 3

vedi foto A con $d = 2 \times 10^6$

$$E_s = \frac{1}{2} E_p \left(2 + \frac{1}{2} \right) + \frac{1}{2} E_p \left(\frac{1}{2} + \frac{3}{2} \right) =$$

$$= E_p \left(\frac{5}{2} + \frac{2}{2} \right) = \frac{7}{2} E_p$$

$$P_E^{(M)}(b) = \frac{1}{2} Q \left(\frac{1/\gamma}{\sqrt{\pi \sigma_B}} \right) + \frac{1}{2} Q \left(\frac{2/\gamma}{\sqrt{\pi \sigma_B}} \right)$$

$$P_E^{(Q)}(b) = \frac{1}{2} Q \left(\frac{1/\gamma}{\sqrt{\pi \sigma_B}} \right) + \frac{1}{2} Q \left(\frac{3/\gamma}{\sqrt{\pi \sigma_B}} \right)$$

ESERCIZIO 5

1) NO (NO PASSINO IN ϕ)

2) NO

3) NO vedi contribuzione in e^- rule