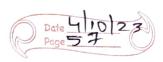




> Vurunu; Jusing the formula for variance; V[x]=E[x]-(E[x]) 1 1 1 3 1 b $\frac{-1}{(b-a)}$ $\frac{(b^2-a^2)}{3}$ (b-a) (b+artab) btatab VEXD= ratbor-ab



:VEXJ-EEXZJ - CELXJJ = (bta)-ab - (bta) = 4(b+a)-4ab-3(b+a)2 = Cb+a5-4ab (societistis) : V[x] = (b-a) - 12 | 2 | 12 | 12 => Standard denotion: By the basic difinition of standard 52 TV(x) = b-a, EXAMPLE: The current (on mA) measured on a - Pice of copper were is known to tollow a unitom distribution over the enterval DO, 25]. Find the formula to- the probability density function fix) of the trandom variable of representing the currento Calculate the mean, variance, and standard deviation of the distribution and find the Cumulative distribution function FCD.

Date 4 10 23 => fix>= 1/25. 05:500-25 F(x7= 50; x20 x-0/25-0= x/25; 06x625 1; x >25 Micans bla = 28+0 = 12.5 Noranu = (ba) = 65) = 625Standard devation = 5= Cb-93 25 Question: If x 10 uniformly distributed in
[1] Ite mean (1) variance (1) Standard derection 1912 median > (8) ED0] = bt9 - 4-1 = 1.5 (98) V[x]=(b-a5 = 25 (111) 6= NISJ= 3 (9v) Median= 14-1-15