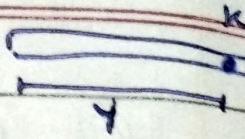
SHUBHAM GUPTA.
180749.

MW-2



1) ~~[illegible]~~

$Y = \min(x, 1-x)$

x = pt. of break from left end

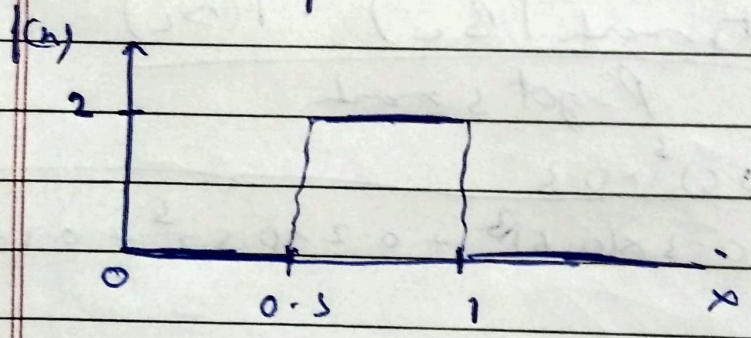
y = length of longer piece

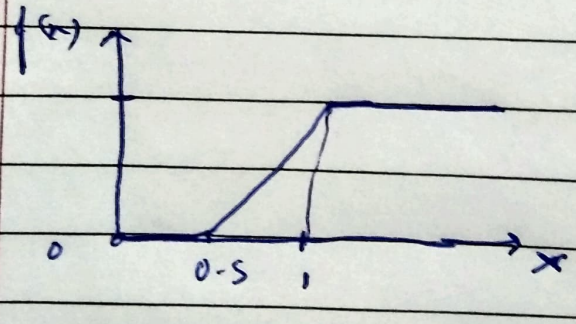
it is a uniform distribution $U(a, b)$

density func^n.

$a = 0.5$

$b = 1$.





distribution func^n

$$\text{mean} = \frac{1}{2}(a+b) = 0.75$$

$$\text{median} = \frac{1}{2}(a+b) = 0.75$$

$$\text{variance} = \frac{1}{12}(b-a)^2 = 0.0208$$

Ans