Discrete Random Variables

$$P(X=x)=\frac{x}{10}$$

x	1	2	3	4
$P(X=x)$	0.1	0.2	0.3	0.4

$$E(X)=(1\times0.1)+(2\times0.2)+(3\times0.3)+(4\times0.4)$$

$$E(X^2)=(1^2\times0.1)+(2^2\times0.2)+(3^2\times0.3)+(4^2\times0.4)$$

$$Var(X)=E(X^2)-(E(X))^2$$

$$Var(5X)=Var(X)\times5^2$$

$F(X)\,is\,a\,cumulative\,distribution$