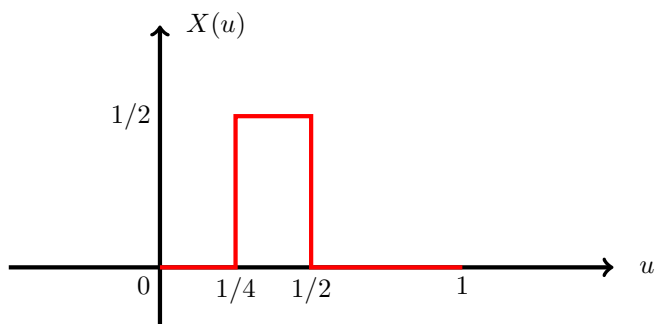


The sample space of an experiment is the unit interval  $S = [0, 1]$ , and  $P([a, b]) = b - a$  whenever  $0 \leq a \leq b \leq 1$ . A random variable  $X : S \rightarrow \mathbb{R}$  is shown in red in the figure below.



Which of the following is the cumulative distribution function (CDF) of  $X$  ?

