$$2\left\{\begin{array}{c|c} \\ \hline \\ 1/2 & 0 \end{array}\right. \begin{array}{c} 1/2 & 1 \end{array} \begin{array}{c} 1/2 \\ \hline \end{array} \begin{array}{c} P \\ \end{array}$$
 histogram