

$$R = \left[\begin{array}{c|c|c|c|c} \begin{array}{c} m \\ \hline n \end{array} & B & \begin{array}{c} m \\ \hline n \end{array} & AB & \begin{array}{c} m \\ \hline n \end{array} & A^2 B & \cdots & \begin{array}{c} m \\ \hline n \end{array} & A^{n-1} B \end{array} \right]$$