$$\left(\begin{array}{ccc} 3 & 1 & 2 \\ 1 & 2 & 3 \\ 1 & 2 & 3 \end{array}\right) \quad \left(\begin{array}{ccc} 1 & 2 & 3 \\ 2 & 3 & 1 \\ 3 & 2 & 1 \end{array}\right).$$