Step-1

Given matrices are

$$A = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{bmatrix} \quad \text{and} \quad B = \begin{bmatrix} 0 & 0 & 1 & 2 \\ 0 & 3 & 4 & 5 \\ 6 & 7 & 8 & 9 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

The big formula is

$$\det A = \sum_{\text{all p's}} \left(a_{1\alpha} a_{\beta} \ldots\ldots a_{n}\gamma \right) \det p$$

Step-2

Here

$$\det A = \det \begin{vmatrix} 0 & 1 & 0 & 0 \\ 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{vmatrix}$$

Term is $(-1)^2 a_{12} a_{21} a_{34} a_{43}$ as there are exactly two interchanges in permutations of 1, 2 and 3, 4.

An the value of $\det A = (-1)^2 .1.1.1.1 = \boxed{1}$

Step-3

And in $\det B = \det \begin{vmatrix} 0 & 0 & 1 & 2 \\ 0 & 3 & 4 & 5 \\ 6 & 7 & 8 & 9 \\ 0 & 0 & 0 & 1 \end{vmatrix}$, the only non zero term is $(-1) b_{13} b_{22} b_{31} b_{44}$ as exactly one interchange of 1, 3 is involved in the permutation and the value of

$$\det B = (-1).1.3.6.1$$

$$= \boxed{-18}$$