

## Determinants - Class XII

### Related Questions with Solutions

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#### Questions

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##### Question: 01

$$\begin{vmatrix} a & b & c \\ x & y & z \\ p & q & r \end{vmatrix} =$$

- A.  $\begin{vmatrix} y & b & q \\ x & a & p \\ z & c & r \end{vmatrix} - abc$
- B.  $\begin{vmatrix} y & b & q \\ x & a & p \\ z & c & r \end{vmatrix} + pqr$
- C.  $\begin{vmatrix} y & b & q \\ x & a & p \\ z & c & r \end{vmatrix} + abc - pqr$
- D.  $\begin{vmatrix} y & b & q \\ x & a & p \\ z & c & r \end{vmatrix}$

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#### Solutions

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##### Solution: 01

$$\begin{aligned} D &= \begin{vmatrix} a & b & c \\ x & y & z \\ p & q & r \end{vmatrix} = \begin{vmatrix} a & x & p \\ b & y & q \\ c & z & r \end{vmatrix} && \text{[By interchanging row and column]} \\ &= - \begin{vmatrix} x & a & p \\ y & b & q \\ z & c & r \end{vmatrix} && (C_1 \leftrightarrow C_2) \\ &= \begin{vmatrix} y & b & q \\ x & a & p \\ z & c & r \end{vmatrix} && (R_1 \leftrightarrow R_2) \end{aligned}$$

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#### Correct Options

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Answer:01

Correct Options: D