Key Takeaways

Properties of Determinants

- Determinant of an odd order skew – symmetric matrix is zero .

Proof:

$|A| = |-A^T|$ $\boxed{A = -A^T}$

$= (-1)^n \, |A^T|$

If n is odd,

$|A| = -|A| \Rightarrow |A| = 0$

Example: Value of determinant $\begin{vmatrix} 0 & p-q & q-r \\ q-p & 0 & r-p \\ r-q & p-r & 0 \end{vmatrix}$ is 0.

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