Key Takeaways

System of linear equations (Cramer's rule):

Three variables : HOMOGENEOUS SYSTEM

$$a_1x + b_1y + c_1z = 0$$
$$a_2x + b_2y + c_2z = 0$$
$$a_3x + b_3y + c_3z = 0$$

$$\Delta = \begin{vmatrix} a_1 & b_1 & c_1 \\ a_2 & b_2 & c_2 \\ a_3 & b_3 & c_3 \end{vmatrix}$$

(i) If $\Delta \neq 0$, then system has trivial solution.

(ii) If $\Delta = 0$, then system has non - trivial solution (infinitely many solutions).

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