

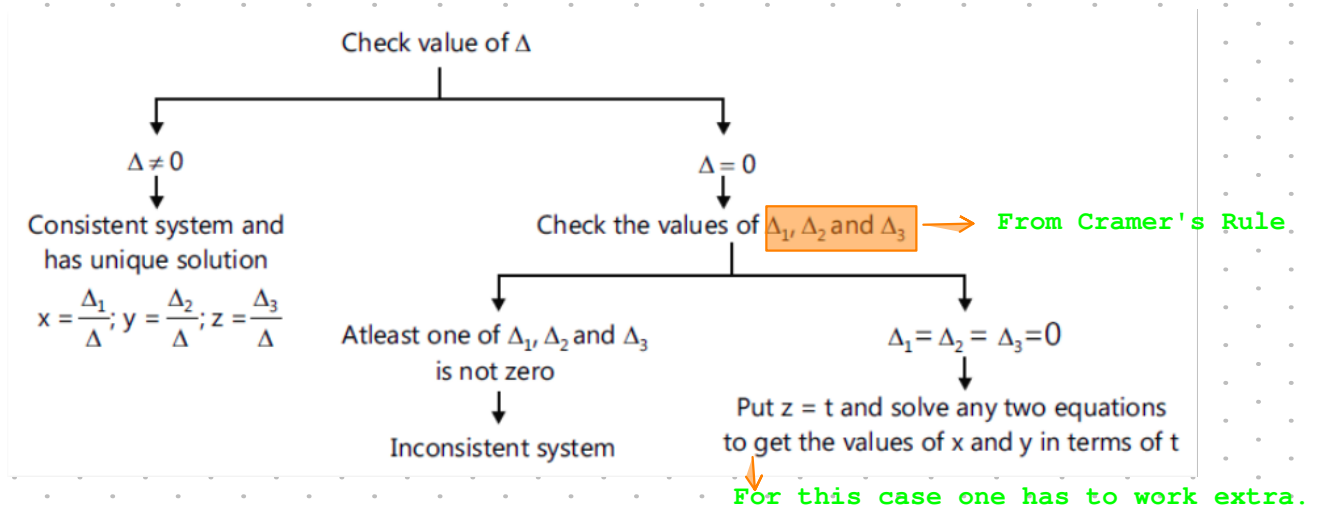
Tips and Tricks:

Note: Concept of solving System of Linear Equations using Determinants is the most important one from this chapter. I am almost sure there will be one question from this concept in JEE Exam. So do learn this one.

Tip-1

Homogeneous linear equations, always possess at least one solution i.e. $(0, 0, 0)$. It is also called TRIVIAL solution. And if det is zero then there are infinite solutions.

Tip-2



Tip-3

(a) $ax^2 + 2hxy + by^2 + 2gx + 2fy + c = 0$ represents a pair of straight lines if

$$abc + 2fgh - af^2 - bg^2 - ch^2 = 0 = \begin{vmatrix} a & h & g \\ h & b & f \\ g & f & c \end{vmatrix}$$

Tip-4

(b) Area of a triangle whose vertices are

$$(x_r, y_r); r = 1, 2, 3 \text{ is: } D = \frac{1}{2} \begin{vmatrix} x_1 & y_1 & 1 \\ x_2 & y_2 & 1 \\ x_3 & y_3 & 1 \end{vmatrix}$$

If $D = 0$ then the three points are collinear.