



Two variables :

$$a_1x + b_1y = c_1$$

$$a_2x + b_2y = c_2$$

$$\Delta = \begin{vmatrix} a_1 & b_1 \\ a_2 & b_2 \end{vmatrix} = a_1b_2 - a_2b_1$$

Inconsistent System:

If $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$, then system of equations has no solution.

