



Math for the people, by the people.

Cramer's rule

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Let $Ax = b$ be the matrix form of a system of n linear equations in n unknowns, with x and b as $n \times 1$ column vectors and A an $n \times n$ matrix. If $\det(A) \neq 0$, then this system has a unique solution, and for each i ($1 \leq i \leq n$)

$$x_i = \frac{\det(M_i)}{\det(A)}$$

where M_i is A with column i replaced by b .