$AX = B$

1. if $|A| \neq 0$; then the system is consistent and has a unique solution given by $X = A^{-1}B$

2. if $|A| = 0$ and $(\text{Adj } A) \neq 0$ then the system is inconsistent.

3. if $|A| = 0$ and $(\text{Adj } A) = 0$ then the system is consistent and has infinitely many solutions.