



## Key Takeaways



- Cayley – Hamilton Theorem

Every square matrix  $A$  satisfies its characteristic equation  $|A - \lambda I| = 0$ .

If  $a_0\lambda^n + a_1\lambda^{n-1} + \dots + a_{n-1}\lambda + a_n = 0$  is the characteristic equation of  $A$

$$\therefore a_0A^n + a_1A^{n-1} + \dots + a_{n-1}A + a_nI = 0$$

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