

Check and Find Invertible Matrix

Check Invertible Matrix

method 1:

If column vectors are in the same line
then not invertible

method 2: perform $A\vec{x} = \vec{0}$

If there's a solution \vec{x}' other than $\vec{0}$
then not invertible

★ Find Invertible Matrix

1. write $[A|I]$

2. eliminate A to $I \Rightarrow [I|E]$

3. $E = A^{-1}$ ($EA = I, E = A^{-1}$)