



## **Problem**

Consider V, the set of all invertible  $3 \times 3$  matrices is V subspace of  $R^{3\times3}$ ?



## **Problem**

Find a basis of the space of all  $2 \times 2$  matrices A such that

$$A \begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix} = \begin{pmatrix} 0 & 0 \\ 0 & 0 \end{pmatrix}$$