

Basis Practice

Find a basis for each of the following homogeneous linear systems.

$$\begin{bmatrix} 1 & 2 & 0 & 3 & | & 0 \\ 2 & 4 & 1 & 10 & | & 0 \\ 3 & 6 & 2 & 17 & | & 0 \\ 4 & 8 & -2 & -8 & | & 0 \end{bmatrix} \quad (1)$$

$$\begin{bmatrix} 0 & 1 & 2 & 2 & 11 & | & 0 \\ 0 & 2 & 5 & 7 & 33 & | & 0 \\ 0 & 1 & 2 & 3 & 14 & | & 0 \end{bmatrix} \quad (2)$$

$$\begin{bmatrix} -2 & -2 & -1 & | & 0 \\ 3 & 3 & 1 & | & 0 \\ 8 & 8 & 7 & | & 0 \end{bmatrix} \quad (3)$$