

## ASSIGNMENT

1. Show that  $\{(1, 2, 3), (2, 3, 4), (3, 4, 5)\}$  is a linearly dependent set.
2. Show that  $\{(2, 4, 6), (6, 4, 2)\}$  is linearly independent.
3. If  $A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \\ 5 & 6 \end{bmatrix}$  and  $B = \begin{bmatrix} 7 & 8 & 9 \\ 10 & 11 & 12 \end{bmatrix}$ , find  $AB$ .
4. Suppose  $A = \begin{bmatrix} 3 & 2 \\ 2 & 2 \end{bmatrix}$  and  $B = \begin{bmatrix} 2 & 3 \\ 3 & 4 \end{bmatrix}$ . Find  $AB$  and  $BA$ .