

$$\underline{\mathbf{a}} = \begin{bmatrix} 3 \\ 7 \\ 5 \\ 11 \\ 4 \\ 0 \end{bmatrix} \quad \underline{\mathbf{b}} = \begin{bmatrix} 4 \\ -2 \\ 2 \\ 6 \\ -4 \\ 0 \end{bmatrix} \quad \underline{\mathbf{c}} = \begin{bmatrix} 0 \\ -7 \\ 1/2 \\ 6 \\ 6 \\ 6 \end{bmatrix} \quad \mathbf{d} = \begin{bmatrix} K \\ L \\ M \\ O \\ P/N \end{bmatrix}$$

$$\underline{\mathbf{e}}' = (5, 0, 2, 2, 3)$$

$$\underline{\mathbf{f}}' = (\mathbf{X}, 5, 8, \mathbf{Y}, \mathbf{Z})$$

$$\lambda = -1$$

Compute:

1. $\underline{\mathbf{a}} + \underline{\mathbf{b}}$

2. $\underline{\mathbf{a}} + \underline{\mathbf{d}}$

3. $\underline{\mathbf{b}}' - \underline{\mathbf{c}}'$

4. $\underline{\mathbf{e}}' + \underline{\mathbf{f}}'$

Show
all work

5. $\underline{\mathbf{d}}' - \underline{\mathbf{e}}'$

6. $\lambda \underline{\mathbf{b}}$

7. $\lambda \underline{\mathbf{e}}'$

8. $\lambda \underline{\mathbf{f}}$

9. $\underline{\mathbf{a}}'\underline{\mathbf{b}}$

10. $\underline{\mathbf{e}}'\underline{\mathbf{e}}$

11. $\underline{\mathbf{e}}'\underline{\mathbf{1}}$

12. $\underline{\mathbf{1}}'\underline{\mathbf{e}}$
