Linear Algebra Homework

Zac Schepis

November 2023

1 Section 6.2 Problems

1 assume that $\{u_1, ..., u_4\}$ is an orthogonal basis for R^4

$$\frac{-16}{18}\begin{pmatrix} 0 \\ 1 \\ -4 \\ -1 \end{pmatrix} + \frac{-8}{36}\begin{pmatrix} 3 \\ 5 \\ 1 \\ 1 \end{pmatrix} + \frac{12}{18}\begin{pmatrix} 1 \\ 0 \\ 1 \\ -4 \end{pmatrix} + \frac{72}{36}\begin{pmatrix} 5 \\ -3 \\ -1 \\ 1 \end{pmatrix} = \begin{pmatrix} 10 \\ -8 \\ 2 \\ 0 \end{pmatrix}$$