

1. $\underline{u} = \begin{pmatrix} 5 \\ 1 \\ 3 \end{pmatrix}, \underline{v} = \begin{pmatrix} 2 \\ 0 \\ 1 \end{pmatrix}, \underline{w} = \begin{pmatrix} -1 \\ 1 \\ 1 \end{pmatrix}$ using a determinant.

2. Construct $D\underline{f}$ for the function $\underline{f} = \begin{pmatrix} (x+z)\sin(y) \\ xy^2z \end{pmatrix}$.