1. Use the standard inner product on W_{22} for

$$\boldsymbol{U}=\begin{bmatrix}1 & 0\\ 1 & 2\end{bmatrix} \quad , \quad \boldsymbol{V}=\begin{bmatrix}1 & 3\\ 1 & -1\end{bmatrix} ;$$

to compute the following 3 problems.

(1) $||\boldsymbol{U}||$ $\sqrt{6}$

(2) $d(\boldsymbol{U}-\boldsymbol{V})$ $3\sqrt{2}$ $(\sqrt{18})$

(3) True or false: whether $\boldsymbol{U}$ is orthogonal to $\boldsymbol{V}$? True