

Name:

Using the vectors $\mathbf{u} = \begin{bmatrix} -3 \\ 0 \\ 4 \end{bmatrix}$ and $\mathbf{x} = \begin{bmatrix} 6 \\ -7 \\ -8 \end{bmatrix}$ compute:

- $\|\mathbf{u}\|$

- $\mathbf{x} \cdot \mathbf{u}$

- $\frac{\mathbf{x} \cdot \mathbf{u}}{\mathbf{u} \cdot \mathbf{u}} \mathbf{u}$