

MA 122: Reading Assignment 8

Read Sections 13.3 and 13.4. Do the following:

- (1) Let $\mathbf{u} = (3/\sqrt{5}, 4/\sqrt{5})$ and $\mathbf{v} = (4, 1)$. Find the component of \mathbf{v} parallel to \mathbf{u} and find the component of \mathbf{v} perpendicular to \mathbf{u} .

- (2) Let $\mathbf{v} = (2, 1, 3)$ and let $\mathbf{w} = (-1, 4, 1)$. Compute $\mathbf{v} \times \mathbf{w}$. (Use the algebraic definition of \times .)