

Name:

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MAC 2313.3122

Cyr

Quiz 2

You must show all work to receive full credit!!

Problem 1. (6 pts) Let $\mathbf{u} = \langle 1, 0, 1 \rangle$, $\mathbf{v} = \langle 2, -1, 0 \rangle$.

(a) Find $\mathbf{u} \times \mathbf{v}$.

(b) Use your work from part (a) to find the equation of the plane containing the vectors \mathbf{u} and \mathbf{v} and passing through the point $(2, 0, 1)$. (Write your answer in scalar form.)

Problem 2. (4 pts) Find the intersection of the line $\mathbf{r}(t) = \langle 2, -1, -1 \rangle + t\langle 1, 2, -4 \rangle$ and the plane $2x + y = 3$.