Name:
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MAC 2313.3118
Cyr

Quiz 2
You must show all work to receive full credit!!

**Problem 1.** (6 pts) Let $\mathbf{u} = \langle 2, -4, 0\rangle, \mathbf{v} = \langle 2, 0, -2\rangle$.
(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 $(0, 4, 0)$. (Write your answer in scalar form.)

**Problem 2.** (4 pts) Find the intersection of the line $\mathbf{r}(t) = \langle 1, 0, -1\rangle + t\langle 4, 9, 2\rangle$ and the plane $x - z = 6$.