Name:
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MAC 2313.8443
Cyr

Quiz 1
You must show all work to receive full credit!!

**Problem 1.** Let $\mathbf{u} = \langle 2, -3, 1\rangle$ and $\mathbf{v} = \langle -3, -2, 1\rangle$.
(a) (3 pts) Find a vector parametrization for the line passing through the point $(2, -5, 7)$ in the direction of the vector $\mathbf{u} - \mathbf{v}$.

(b) (4 pts) Find the projection of $\mathbf{u}$ along $\mathbf{v}$.

(c) (3 pts) Find a vector that is orthogonal to both $\mathbf{u}$ and $\mathbf{v}$.