



Department of Physics

Quiz #7

Physics 161, Calculus Mechanics and particle dynamics

1. Perform the Dot Product operations for the vectors: $\vec{V} = v_x\hat{x} + v_y\hat{y} + v_z\hat{z}$ and $\vec{J} = j_x\hat{x} + j_y\hat{y} + j_z\hat{z}$.

a) $\vec{J} \cdot \vec{V} =$

b) $\vec{V} \cdot \vec{J} =$

2. Perform the Dot product operation for the vectors: $\vec{V}_1 = 2\hat{x} + 3\hat{y} + 4\hat{z}$ and $\vec{J}_1 = 1\hat{x} + 2\hat{y} + 5\hat{z}$

a) $\vec{J}_1 \cdot \vec{V}_1 =$

b) $\vec{V}_1 \cdot \vec{J}_1 =$