

Quiz 1

1. Determine whether $\vec{u} = \langle 3, -2 \rangle$ and $\vec{v} = \langle -6, 4 \rangle$ are orthogonal, parallel or neither.
2. Determine whether $\vec{u} = \langle -4, 6 \rangle$ and $\vec{v} = \langle 2, -3 \rangle$ are orthogonal, parallel or neither.
3. Let $\vec{a} = \langle -1, 2 \rangle$ and $\vec{b} = \langle 3, -5 \rangle$. Find the magnitude of $3\vec{a} + 2\vec{b}$.
4. Let $\vec{a} = \langle 5, -3 \rangle$ and $\vec{b} = \langle -2, 1 \rangle$. Find the magnitude of $2\vec{a} + 3\vec{b}$.