1. Plot the points $A(4, -3, 0)$ and $B(3, 4, 5)$ on the graph below and draw $\vec{AB}$. Write the vector $\vec{AB}$ using the $(?, ?, ?)$ notation.

2. For what values of $t$ are $\mathbf{u} = ti - j + k$ and $\mathbf{v} = ti + tj - 2k$ perpendicular? Explain why there are no values of $t$ for which $\mathbf{u}$ and $\mathbf{v}$ are parallel.