Each problem is worth 5 points. Clear and complete justification is required for full credit. Use the vectors $\vec{u}=3\vec{i}+2\vec{j}-\vec{k}$ and $\vec{v}=-2\vec{i}+\vec{j}+2\vec{k}$ for the following problems: 1. Find $\|\vec{u}\|$.

2. Find a unit vector in the direction of \vec{v} .