1. Let $\vec{a} = \langle 2, -1 \rangle$ and $\vec{b} = \langle -1, 4 \rangle$

   (a) Find $\vec{u_a}$, the unit vector in the same direction as $\vec{a}$

   (b) Find $\vec{u_b}$

   (c) Find the angle between $\vec{a}$ and $\vec{b}$

   (d) Find the angle between $\vec{u_a}$ and $\vec{u_b}$

   (e) Give two vectors perpendicular to $\vec{a}$

2. Repeat #1 for $\vec{a} = \langle 1, -3, 2 \rangle$ and $\vec{b} = \langle 3, 0, 1 \rangle$