1. Consider the two vectors $\vec{u}$ and $\vec{v}$ drawn on the other board.

   (a) Draw a picture showing how to find $\operatorname{proj}_{\vec{v}} \vec{u}$, the projection of $\vec{u}$ on $\vec{v}$. Label the projection with its name.

   (b) Draw another picture showing how to find $\operatorname{proj}_{\vec{u}} \vec{v}$. Label the projection with its name.

   (c) Add $\operatorname{perp}_{\vec{v}} \vec{u}$ and $\operatorname{perp}_{\vec{u}} \vec{v}$ to your two pictures in such a way that we see $\vec{u}$ and $\vec{v}$ as the sums of the proj and perp vectors by the parallelogram method.

2. Find the equation $y = mx + b$ of the line containing $P(-3, 2)$ and $Q(1, 4)$.