

1. (3 points) Find the sum of the vectors $\langle 1, 2 \rangle$ and $\langle -3, 0 \rangle$. Illustrate the sum geometrically.
2. (3 points) Find the vector projection of the vector $\langle 3, 0 \rangle$ onto the vector $\langle 1, 1 \rangle$. Illustrate the projection geometrically.
3. (4 points) Find a vector equation, a parametric equation, and a Cartesian equation for the line that passes through the point $(1, 2)$ and is parallel to the vector $\langle -1, 1 \rangle$.