MATH 261 Quiz 2 Name: .
Student number:

Show all work. 5 points each.

1. Find $proj_{\mathbf{a}}\mathbf{b} = \left(\frac{\mathbf{a}\cdot\mathbf{b}}{\mathbf{a}\cdot\mathbf{a}}\right)\mathbf{a}$ when $\mathbf{a} = \langle 3, -4\rangle$ and $\mathbf{a} = \langle 5, 0\rangle$. Draw a picture of the three vectors on the xy-axis.

2. Find an equation of the plane through the point $(6, 3, 2)$ and perpendicular to the vector $\langle -2, 1, 5\rangle$. Give one additional point on this plane.