

Show all work. 5 points each.

1) Find the projection  $\mathbf{P}$  of  $\mathbf{B} = (1, -1, 0)$  along  $\mathbf{A} = (4, 2, 4)$ . Also find  $|\mathbf{P}|$ .

2) Find  $\mathbf{N}$  and the equation of the plane through the points  $(0, 0, 0)$ ,  $(1, 2, 1)$ , and  $(1, 1, 2)$ .