

Math 241 - Quiz 1 - Thursday, September 1

Your name here:

1. Given the vectors below, draw the vectors $-\mathbf{u} + 2\mathbf{w}$ and $\mathbf{u} - \mathbf{w}$. (2 points)



2. Give the equation for the plane containing the point $P = (-3, 1, 0)$ and having normal vector $\mathbf{n} = (1, 4, 3)$. (4 points)
3. (a) Find a unit vector in the direction of $\mathbf{v} = (2, -1, 2)$. (1 point)
- (b) Find the projection $\text{proj}_{\mathbf{v}}(\mathbf{u})$ of the vector $\mathbf{u} = (1, 7, 2)$ onto \mathbf{v} . (3 points)