Quiz 1

MATH 210, CALCULUS III, SUMMER 2015

NAME:

Problem 1. Let $\mathbf{u} = \langle 2, -1 \rangle$, $\mathbf{v} = \langle 1, 0 \rangle$, and $\mathbf{w} = \langle -1, 1 \rangle$. Find $|2\mathbf{u} - 3\mathbf{v} + 2\mathbf{w}|$.

$|2\langle 2,-1\rangle - 3\langle 1,0\rangle + 2\langle -1,1\rangle|$

$= |\langle 4,-2\rangle + \langle -3,0\rangle + \langle -2,2\rangle|$

$= |\langle -1,0\rangle| = \sqrt{(-1)^2+0^2} = \sqrt{1} = 1$

Problem 2. Sketch the plane parallel to the xy-plane through $(2, 4, 2)$ and find its equation. Make sure you label your axes in your sketch!