Math 173 - Quiz 2

Name _____

February 7, 2011

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (3 points) Find a set of parametric equations for the line of intersection of the two planes $x + 3y + 2z = 6$ and $2x - 2y + 3z = 7$.

2. (2 points) Find an equation of the plane passing through the points $(1, 1, 1)$, $(0, -2, 3)$, and $(4, 1, -3)$.

3. (3 points) Find a point that lies exactly 5 units from the plane $2x + 2y - z = 8$.

4. (2 points) See Theorem 11.14. Then find the distance between the point $(2, 1, -3)$ and the line given by

$$\frac{x+2}{3} = \frac{y-8}{2} = z + 5.$$