

Your Name:

Duration of the Quiz is 20 minutes. There are two problems, worth 20 points. Show all your work for full credit. Books, notes etc. are prohibited. Calculators are NOT permitted.

1. Find an equation of the plane through the point $(1, -1, -1)$ and parallel to the plane $5x - y - z = 6$. Explain your steps clearly.

2. Find a vector equation, parametric equations and symmetric equations for the line of intersection of the planes $x + 2y + 3z = 1$ and $x - y + z = 1$. Explain your steps clearly.