

January 30, 2004**Show all work for credit.**

1. Find an equation of the line

(a) The line through the point $(-2, 4, 10)$ and parallel to the vector $\langle 3, 1, -8 \rangle$

(b) The line through the points $(-1, 0, 5)$ and $(4, -3, 3)$

2. Find the plane through the points $(3, -1, 2)$, $(8, 2, 4)$, and $(-1, -2, -3)$

3. The plane through the point $(-1, 6, -5)$ and parallel to the plane $x + y + z + 2 = 0$