Math 53, Spring 2000, sections 107 & 109
Quiz #3, 4 February Name_____

Instructions: You have 20 minutes in which to answer the questions on BOTH pages of this quiz. No calculators, notes, or other references may be used.

1. (4 points) Find parametric equations $x = f(t)$, $y = g(t)$, and $z = h(t)$ for the line which passes through the points $P = (5, -1, -2)$ and $Q = (1, 5, 6)$.

2. (4 points) Find an equation in x, y, and z for the plane which contains the points $A = (-1, 3, 0)$, $B = (2, 1, 1)$, and $C = (4, 1, -1)$.

3. (2 points) Find the point X at which the line defined in problem 1 intersects the plane defined in problem 2.

4. (0 points) Does the line segment from P to Q intersect the triangle whose corners are A, B, and C?