MATH **126** Quiz **Oct. 24** **Name:**

No books, notes or graphing calcuators. Turn off your cell phones.

(5) 1. Determine whether the lines

$$L_1 : \frac{x-1}{2} = \frac{y-3}{2} = \frac{z-2}{-1} \quad \text{and} \quad L_2 : \frac{x-2}{2} = \frac{y-6}{-1} = \frac{z+2}{3}$$

are parallel, skew or intersecting. If they intersect, find the point of intersection.

(5) 2. Find an equation of the plane through the origin, and the points $(2, -4, 6)$ and $(5, 1, 3)$.