

Math 10270 : Quiz 4

1. (5 points) Consider the line L determined by the two points $P_1 = (1, 2, 3)$ and $P_2 = (4, 6, 8)$. Write down a set of parametric equations for L and determine the point of intersection of L with the plane $x - 2y - 3z = 4$.

2. (5 points) A line in the xy -plane is given by the parametric equations $x = -3 + 5t$ and $y = 4 + 2t$.

(i) Check that the points $(-3, 4)$ and $(7, 8)$ lie on the line. How about the point $(1, 5.5)$?

(ii) Show that the slope of the line is $2/5$.