

Show all work. 5 points each.

1) Find the point (x, y) where the two lines intersect (if they do). Also find the determinant D .

$$x - 3y = 0$$

$$3x - y = 8$$

2) Rewrite as a matrix equations $Au = d$ and solve. The planes $x + y = 0$, $x + y + z = 1$, and $y + z = 0$ intersect at $u = (x, y, z)$.