

Quiz 3

$$PQ = \langle 1, -1, 0 \rangle$$

$$PR = \langle 1, 0, -1 \rangle$$

$$PQ \cdot PR = \begin{bmatrix} i & j & k \\ 1 & -1 & 0 \\ 1 & 0 & -1 \end{bmatrix} = 1i + 1j + 1k$$

$$abc = \langle 1, 1, 1 \rangle$$

$$P \rightarrow 1(x-0) + 1(y-1) + 1(z-1) = 0$$

$$x + y + z = 2$$

$$l(t) = \langle 1, 1+2t, 4t \rangle$$

$$x = 1 \quad y = 1+2t \quad z = 4t$$

$$1 + (1+2t) + 4t = 14$$

$$2 + 6t = 14$$

$$6t = 12 \rightarrow t = 2$$

$$x = 1, y = 5, z = 8$$