

Math 241: Quiz 3

Show ALL Work

Name _____

1. Find parametric equations for the line ℓ parallel to the line given by

$$x = -1 + 2t, \quad y = 2 - t, \quad z = 1 + t$$

and passing through the point $(-2, 2, 3)$.

Parametric Equations for ℓ :

2. Let ℓ be the line given by the parametric equations $x = 3t$, $y = 1 - 2t$ and $z = 1 + 2t$. Let ℓ' be the line given by the parametric equations $x = 2 - t$, $y = 2 + t$ and $z = -t$. The lines ℓ and ℓ' intersect at a point P . Calculate the point P . Show work and simplify your answer.

$P =$ (simplify)