

Question 3

(c) To show that the point  $(-2, -10, 8)$  lies in the plane if we can find  $t$  such that

$$-2 = 2 - t$$

$$-10 = 2 - 3t$$

$$8 = 4 + t$$

Solving for  $t$  we get  $t = 4$

Thus the point  $(-2, -10, 8)$  lies in plane.