

**King Fahd University of Petroleum and Minerals**  
**Department of Math & Stat**  
**Math 201 Section # 22 (111)**  
**Quiz 2 (a)**

Time: 20 minutes

Marks: \_\_\_\_\_/9

---

Name: \_\_\_\_\_

ID #: \_\_\_\_\_ Serial #: \_\_\_\_\_

---

1. Let  $L_1 : x = 1 + 7t$  ,  $y = 3 + t$  ,  $z = 5 - 3t$

$L_2 : x = 4 - t$  ,  $y = 6$  ,  $z = 7 + 2t$

(a) Check whether the lines  $L_1$  and  $L_2$  are parallel or skew lines. [4]

(b) Find the distance between the lines  $L_1$  and  $L_2$  . [5]

**King Fahd University of Petroleum and Minerals**  
**Department of Math & Stat**  
**Math 201 Section # 22 (111)**  
**Quiz 2 (b)**

Time: 20 minutes

Marks: \_\_\_\_\_/9

---

Name: \_\_\_\_\_

ID #: \_\_\_\_\_ Serial #: \_\_\_\_\_

---

1. Determine whether the lines  $L_1$  and  $L_2$  are parallel or intersecting. [4]

$$L_1 : x = 1 + 4t, y = 5 - 4t, z = -1 + 5t$$

$$L_2 : x = 2 + 8t, y = 4 - 3t, z = 5 + t$$

2. Find the distance between the planes. [5]

$$3x - y + 2z = 6$$

$$6x - 2y + 4z = -4$$