

King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics

Math 201 Section#: Serial #: Quiz III(a) (Term 191)

Name : ID #:..... Marks/6

1. Find parametric equations of the line in which the planes $x - 2y + 4z = 2$ and $x + y - 2z = 5$ intersect.

2. Identify the surface $x^2 - y^2 + z^2 - 4x - 2y - 2z + 4 = 0$ and make a rough sketch of it.

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Math 201 Section#: Serial #: Quiz III(b) (Term 191)

Name : ID #..... Marks/6

1. Find equation of plane P_1 through $A(3, 0, -3)$ and perpendicular to the vector from the origin to A . Find distance between planes P_1 and $P_2 : x - y = 1$.

2. Identify the surface $z^2 - x^2 - y^2 = 81$ and make its rough sketch.

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Math 201 Section#: Serial #: Quiz III(c) (Term 191)

Name : ID #..... Marks/6

1. Find an equation of plane passing through points $(1, 2, 3)$, $(-1, 2, 0)$ and perpendicular to plane $x + 2y + 3z = 1$.

2. Identify the surface $z = \sqrt{x^2 + 2y^2 - 4y + 2x + 3}$ and make its rough sketch.

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Math 201 Section#: Serial #: Quiz III(d) (Term 191)

Name : ID #:..... Marks/6

1. Let

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

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

Check whether the lines L_1 and L_2 are parallel or skew. Find distance between the lines L_1 and L_2 .

2. Identify the surface $x^2 + 4y + 9z^2 = 0$ and make a rough sketch of it.