

King Fahd University of Petroleum and Minerals  
Department of Mathematical Sciences  
**Math 201, Section: 8 (062)**  
**Quiz 2(a)**

**Time: 15 Minutes**

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

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

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

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

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1. Use traces to sketch the graph of  $z^2 - x^2 - y^2 = 81$ . Identify this surface.

2. Describe and sketch curve of intersection between paraboloids  $z = x^2 + y^2$  and  $z = 4 - x^2 - y^2$ .

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Quiz 2(b)

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1. Identify the surfaces and make a rough sketch.

(a)  $z = (x + 2)^2 + (y - 5)^2 - 3$ .

(b)  $x^2 - y^2 + z^2 - 4x - 2y - 2z + 4 = 0$ .