

Quiz 2

MATH 261, CALCULUS III, SPRING 2018

SECTION:

NAME:

Instructions: Solve as many of these problems as you can. Circle the correct answer, and show your work!

Problem 1. Identify the surface $x^2 - y^2 - z = 0$

- (a) hyperboloid of one sheet
- (b) hyperboloid of two sheets
- (c) sphere
- (d) hyperbolic paraboloid
- (e) elliptic paraboloid

Problem 2 Which of the following surfaces describes the surface $4x^2 - y^2 - z^2 = 4$

- (a) elliptic paraboloid
- (b) hyperboloid of one sheet
- (c) hyperboloid of two sheets
- (d) cone
- (e) hyperbolic paraboloid

Problem 3 The area of the triangle with vertices at $(a, 0, 0)$, $(0, 2a, 0)$, and $(0, 0, 3a)$ is

- (a) $3a^2/2$
- (b) $5a^2$
- (c) $7a^2/2$
- (d) $6a^3$
- (e) $3a^3$