Name: September 8, 2016 MAC 2313.9722 Cyr

> Quiz 2 You must show all work to receive full credit!!

**Problem 1.** (4 points) Find a vector equation for the line segment from the point (-2, 8, 3) to the point (1, -4, 8).

Problem 2. (6 points) Consider the quadric surface given by the equation

$$9y^2 + 4z^2 - x^2 = 36.$$

(a) Identify the type of (two-dimensional) curve given by the traces y = 0, z = 0, and x = 0.

(b) Use the information from part (a) to classify the surface.

(c) Sketch a graph of the surface.