

Collected Assignment on Sections 12.6 and 13.1

Math 232 Section 1

Due: February 17, 2006 10:10AM

Name (Print): _____

Be sure to justify your answers. Use full sentences.

1. Problem 2 on page 837, Section 12.6.

2. Determine what surface is represented by the equation $3y^2 = 6x^2 + 5z^2$. Reduce the equation to one of the standard forms, sketch the traces of the surface in the coordinate planes, classify the surface and sketch it.

3. Problem 6 on page 855, Section 13.1. Note: You will need L'Hopital's Rule.

4. Problem 12 on page 855, Section 13.1. Be sure to follow all of the directions.

5. Two particles travel along the space curves $\vec{r}_1 = \langle t, 1 + 2t, 3 - 2t \rangle$ and $\vec{r}_2 = \langle -2 - 2t, 1 - 2t, 1 + t \rangle$. Do the particles collide? Do their paths intersect? Justify your answers.