

Math 3298 Worksheet 2

Group members (2 to 4): \_\_\_\_\_

- (1) Sketch the intersection of the quadric surface given by

$$x^2 + 2y^2 - 2z^2 + 4z + 6 = 0$$

with the planes  $x = 0$ ,  $z = 3$ , and  $z = -3$ . What type of conics are the resulting curves?

- (2) Classify the quadric surface based on your answers above, and sketch the surface as best you can.