

Math 3298 Worksheet 44: Lagrange multiplier and extremization review

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

- (1) Find the points on the surface  $S$  closest and farthest away from the point  $(-1, 1, 1)$ , where  $S$  is the portion of the graph  $z = xy$  with  $x^2 + y^2 \leq 1$ .