

Math 53 (Multivariable Calculus), Section 102 & 108

Week 8, Monday

Oct 10, 2022

For the other materials: seewoo5.github.io/teaching/2022Fall

1. Find the local maximum and minimum values and saddle point(s) of the function $f(x, y) = x^2 + y^4 + 2xy$.
2. Find the points on the cone $z^2 = x^2 + y^2$ that are closest to the point $(4, 2, 0)$.
3. Find the side lengths of the rectangular box with volume 8m^3 that has minimal surface area.