

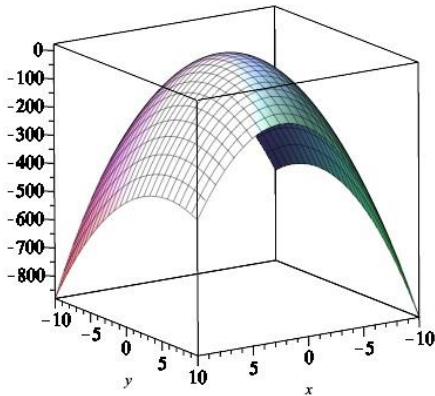
MATH 223 Spring 2025
Assignment 19
Due: Monday, April 7

Reading

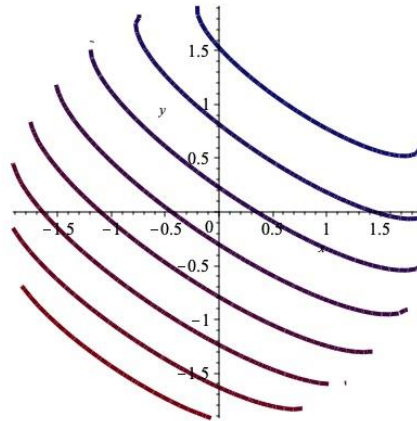
Read carefully Section 5.7 “Alternative Coordinate Systems” in our text *Multivariable Calculus: A Linear Algebra Based Approach*.

Writing

Write out careful and complete solutions of Exercises 18ad, 19ac, 25, and 26 of Chapter 5.



Plot of
 $f(x, y) = 2xy - 5x^2 - 2y^2 + 4x + 4y + 20$



Some Level Curves for
 $f(x, y) = 2x + 3y + \sqrt{4 - x^2 - y^2}$