
1. (Wednesday - Friday) From the textbook, solve 3.7.1, 3.7.3(a), 3.7.4(b), 3.7.5, 3.7.6, 3.7.7(a), 3.7.13, 3.7.14.

2. (Wednesday - Friday) Using Lagrange multipliers, optimize the function

\[ f(x, y) = x^2 + (y + 1)^2 \]

subject to the constraint

\[ 2x^2 + (y - 1)^2 \leq 18. \]