

Key Problems

Problem 1.

Solve the Kuhn-Tucker problems:

a) $\max f(x,y,z) = x - 2y + z$ when $x^2 + y^2 + z^2 \leq 3$

b) $\max f(x,y,z,w) = xz + yw$ when $x^2 + y^2 \leq 1$ and $4z^2 + 9w^2 \leq 36$

Problem 2.

There are few new Key Problems this week. It is recommended that you do the exam problems from final exams (see below), and the problems from Problem Set 6-7 that you have not have time for yet (if any).

Exercise Problems

Problems from the textbook: [E] 6.3cd, 6.5 - 6.10

Exam problems: [Final 11/2017] Question 3-4

[Final 11/2018] Question 3-4

Answers to Key Problems

Problem 1.

a) $f_{\max} = 3\sqrt{2}$

b) $f_{\max} = 3$