Lagrange multipliers



• At the (unconstrained) optimum of a function the partial derivatives are equal to

• At the (unconstrainted) optimum the grad of the function is equal to

• Is the grad of a function, $\nabla f(x, y)$, a scalar or a vector quantity

• Complete the following sentence: At a constrained optimum the grad of the function and the grad of the constraint...





• Explain (in your own words) the purpose of Lagranges method of undetermined multipliers

• State the two steps in Lagranges method of undetermined multipliers

• Write an expression for the extended function that must be optimised in order to optimise the function f(x, y) subject to the constraint g(x, y) = c