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...

Lagrange multipliers

- 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 $g(x, y) = c$