



MathsNET

A joined up approach to
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mathematics

Lagrange multipliers

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



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- 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 $g(x, y) = c$