

Tutorial

- ① Test the function $f(x, y) = x^3 y^2 (6 - x - y)$ for maxima and minima for points not at the origin.
- ② Examine for extreme values of the function $x^3 + y^3 - 63(x + y) + 12xy$
- ③ Examine for minimum and maximum values of the function $\sin x + \sin y + \sin(x + y)$.
- ④ Examine extreme values of the function $x^3 + 3xy^2 - 15x^2 - 15y^2 + 72x$.