

# Assignment 6: Classification of Critical Points

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Maple can be used to assist in determining certain properties of functions of more than one variable, namely classifying critical points. Show how Maple can be used to locate and classify the critical points of a function of two variables.

Find and classify the critical points of the function  $f(x, y) = -120x^3 - 30x^4 + 18x^5 + 5x^6 + 30xy^2$ .

**Value of this assignment is 4 points** (1 point is equal to 1 percent of your final mark).