

# Calculus 120, Chapter 7.1-2 Summary ~ things you should know

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## Important concepts:

functions of multiple variables

partial derivatives, second partial derivatives, and mixed partial derivatives

## Be able to:

evaluate a function of more than one variable, given the function and values

formulate the equation for a function of multiple variables in a given application

derive the level curves for given values of  $z$  in a function  $f(x, y)$

find the equation for all partial derivatives, second partial derivatives, and mixed partial derivatives of a given function

evaluate first- and second-order partial derivatives at specified values

## Review exercises from the text (13<sup>th</sup> edition):

Chapter 7 Review of Fundamental Concepts, 1 – 3, 5– 6

Chapter 7 Supplementary Exercises, 1 – 16 (answers to odd-numbered problems are in the back)