Lecture IX Notes

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1 Multivariable Functions – 14.1

The domain of a multivariable function, $f(x, y)$, may be found by splitting parts of the function up.

Example:

$$f(x, y) = \ln(9 - x^2 - 9y^2)$$

$$D(f(x, y) : 9 - x^2 - 9y^2 \geq 0 \Longrightarrow x^2 + 9y^2 \leq 9 \Longrightarrow \frac{x^2}{9} + y^2 \leq 1$$