

Multivariable functions revisited

If we take a function of type: $f :: D \rightarrow C$, where $D \subseteq \mathbb{R}^n$, and $C \subseteq \mathbb{R}$, $n \geq 2$, we speak about a multivariable function, e.g for $n = 2$ a two-variable function, $n=3$, a three variable function, generally of n -variable function.

Ex. $f :: \mathbb{R}^2 \setminus \{(0, 0)\} \rightarrow \mathbb{R}$, where $f(x, y) = \frac{xy}{x^2+y^2}$, is a two-variable function, its graph is:

