

(Diese Datei wird zur Zeit überarbeitet.)

Chapter X

Functions of Several Variables (Exercises)

1.

Determine the natural domain of the function

$$z = 2x - y .$$

2.

Determine the natural domain of the function

$$z = \sqrt{1 - x^2 - y^2} .$$

3.

Determine the natural domain of the function

$$z = \ln(x + y) .$$

4.

Describe the the area S of a triangle as a function of the base x and the altitude y . Determine the domain of the function S .

5.

Show that the function

$$z = x^2 + y^2$$

is continuous for all values of x and y .

(Last revised: 06.01.05)