

CZ2003 Tutorial 2 (2022/23, Semester 1)

Mathematical functions in computer graphics

1. Give a definition of mathematical function.
2. What ways of defining mathematical functions do you know?
3. Given an explicit function $y = \sin(x) + \cos(x)$, propose how to convert it to the respective parametric functions $x = f_1(t)$ $y = f_2(t)$?
4.
 - (i) Given parametric functions $x = \sin^2(t)$ and $y = \cos(t)$, obtain the respective implicit function $f(x,y) = 0$.
 - (ii) Given parametric functions $x = 2 + 3t$ and $y = 3 + t$, obtain the respective implicit function $f(x,y) = 0$.