

Solution - Exercise [10]

Introduction to Computer Graphics - B-IT Master Course

[Vitaly Kurin]

[Valentin Belonogov]

[Asif Mayilli]

February 2, 2016

First Exercise

$$p'(t) = (3t^2e^{t^2} + 2t^4e^{t^2}, \frac{2t\cos(t)+t^2\sin(t)}{\cos^2(t)})$$

$0 \in [-\pi/4, \pi/4], p'(0) = 0 \Rightarrow p$ is not regular.

Second Exercise

Tangent vector is $p'(t)$

$$p'(t) = (3t^2, 2t + 5)$$
$$p'(2) = (12, 9)$$

Third Exercise

Curve p is arc length parametrised if

$$||p'(t)|| = 1, t \in [a, b]$$