

Tečna' rovina a normala

$$f(x,y) = (x-y) \cdot e^{x^2+y^2}$$

$$T = [1, 0, e]$$

$$1) f(1,0) = 1 \cdot e^1 = e$$

$$11) \frac{df}{dx} = e^{x^2+y^2} + (x-y) \cdot e^{x^2+y^2} \cdot (2x)$$

$$\frac{df}{dx|_T} = e^1 + e^1 \cdot 2 = \underline{3e}$$

$$\frac{df}{dy} = -e^{x^2+y^2} + (x-y) \cdot e^{x^2+y^2} \cdot (2y)$$

$$\frac{df}{dy|_T} = -e^1 + e^1 \cdot 0 = \underline{-e}$$

$$T: z - e = 3e(x-1) - e(y-0)$$

$$z - e = 3ex - 3e - ey$$

$$0 = 3ex - ey - z - 2e$$

$$w: x = 1 + 3et$$

$$y = 0 - et$$

$$z = e - t$$