

Napište rovnici tečné roviny a normály ke grafu funkce f v bodě T :

- | | | |
|-----|--|---|
| (1) | $f(x, y) = x^2 + 3y^2, \quad T = [1, 1, \cdot]$ | ► $2x + 6y - z - 4 = 0$
$[1, 1, 4] + t(2, 6, -1), \quad t \in \mathbb{R}$ |
| (2) | $f(x, y) = 2x^4y - 3xy^2 + 4x, \quad T = [-1, 1, \cdot]$ | ► $7x - 8y + z + 14 = 0$
$[-1, 1, 1] + t(7, -8, 1), \quad t \in \mathbb{R}$ |
| (3) | $f(x, y) = y \arcsin \sqrt{x}, \quad T = [\frac{1}{2}, -1, \cdot]$ | ► $4x - \pi y + 4z - 2 = 0$
$[\frac{1}{2}, -1, -\frac{\pi}{4}] + t(4, -\pi, 4), \quad t \in \mathbb{R}$ |
| (4) | $f(x, y) = (x - y)e^{x^2+y^2}, \quad T = [1, 0, \cdot]$ | ► $3ex - ey - z - 2e = 0$
$[1, 0, e] + t(3e, -e, -1), \quad t \in \mathbb{R}$ |
| (5) | $f(x, y) = \frac{x-1}{y+1} - xy, \quad T = [3, -2, \cdot]$ | ► $x - 5y - z - 9 = 0$
$[3, -2, 4] + t(1, -5, -1), \quad t \in \mathbb{R}$ |
| (6) | $f(x, y) = \operatorname{arctg} \frac{1-x-y}{2x+2y}, \quad T = [\frac{2}{3}, -\frac{1}{3}, \cdot]$ | ► $9x + 9y + 4z - 3 - \pi = 0$
$[\frac{2}{3}, -\frac{1}{3}, \frac{\pi}{4}] + t(9, 9, 4), \quad t \in \mathbb{R}$ |