

Určete tečnou nadrovinu v bodě $[x_0; y_0]$:

1. $f(x, y) = \operatorname{arctg}(x + \ln y); x_0 = 1, y_0 = 1$

2. $f(x, y) = (x - y)e^{x^2 + y^2}; x_0 = 1; y_0 = 0$

3. $f(x, y) = e^x \cos y - 10; x_0 = 0; y_0 = \pi$

4. $f(x, y) = x \cdot \arcsin(\sqrt{y}); x_0 = -1; y_0 = \frac{1}{2}$