#3.1. na auditornima u petak

3.2. Taylor (za 2 var)

TM Taylor za 2 var. oko $T_0(x_0, y_0)$

$$f(x,y) = f(x_0,y_0) + \frac{\partial f}{\partial x}(T_0)(x-x_0) + \frac{\partial f}{\partial y}(T_0)(y-y_0) +$$

$$+\frac{1}{2!}\left[f''_{xx}(T_0)(x-x_0)^2 + 2f''_{xy}(T_0)(x-x_0)(y-y_0) + f''_y(T_0)(y-y_0)^2\right] +$$

često zaboravljaju

$$+\dots + \frac{1}{n!}\left[(x-x_0)\frac{\partial}{\partial x} + (y-y_0)\frac{\partial}{\partial y}\right]^n f(x_0,y_0) + \dots$$

$$+(\text{Lagrangeov ostatak}): \frac{1}{(n+1)!}\left[(x-x_0)\frac{\partial}{\partial x} + (y-y_0)\frac{\partial}{\partial y}\right]^{n+1} f(T_c),$$

gdje je T_c točka na spojnici $T(x,y)$ i $T_0(x_0,y_0)$.

$$\boxed{f(x,y) = T_n(x,y) + R_n(x,y)}$$