Seminar 11

ex 1

Det punctele de extrem local pentru urm. functii
si precizati natura lor

a) $f : \mathbb{R}^2 \to \mathbb{R}$, $\quad f(x, y) = x^4 + y^4$

b) $f : \mathbb{R}^2 \to \mathbb{R}$, $\quad f(x, y) = x^4 - y^4$

ex 2

Aratati ca ecuatia $\quad x \cos y + y \cos z + z \cos x = 1$
defineste intr-o vecinatate a lui $(1, 0, 0)$
unica functie implicita $\quad z = z(x, y) \quad$ si
det $\quad \frac{\partial z}{\partial x}(1, 0)$, $\quad \frac{\partial z}{\partial y}(1, 0) \quad$ si $\quad dz(0, 0)$

ex 3

Fie $f : \mathbb{R}^3 \to \mathbb{R}$, $\quad f(x, y, z) = xy + xz + yz$.
Det punctele de extrem local cu legaturile
$-x + y + z = 1 \quad$ si $\quad x - z = 0$