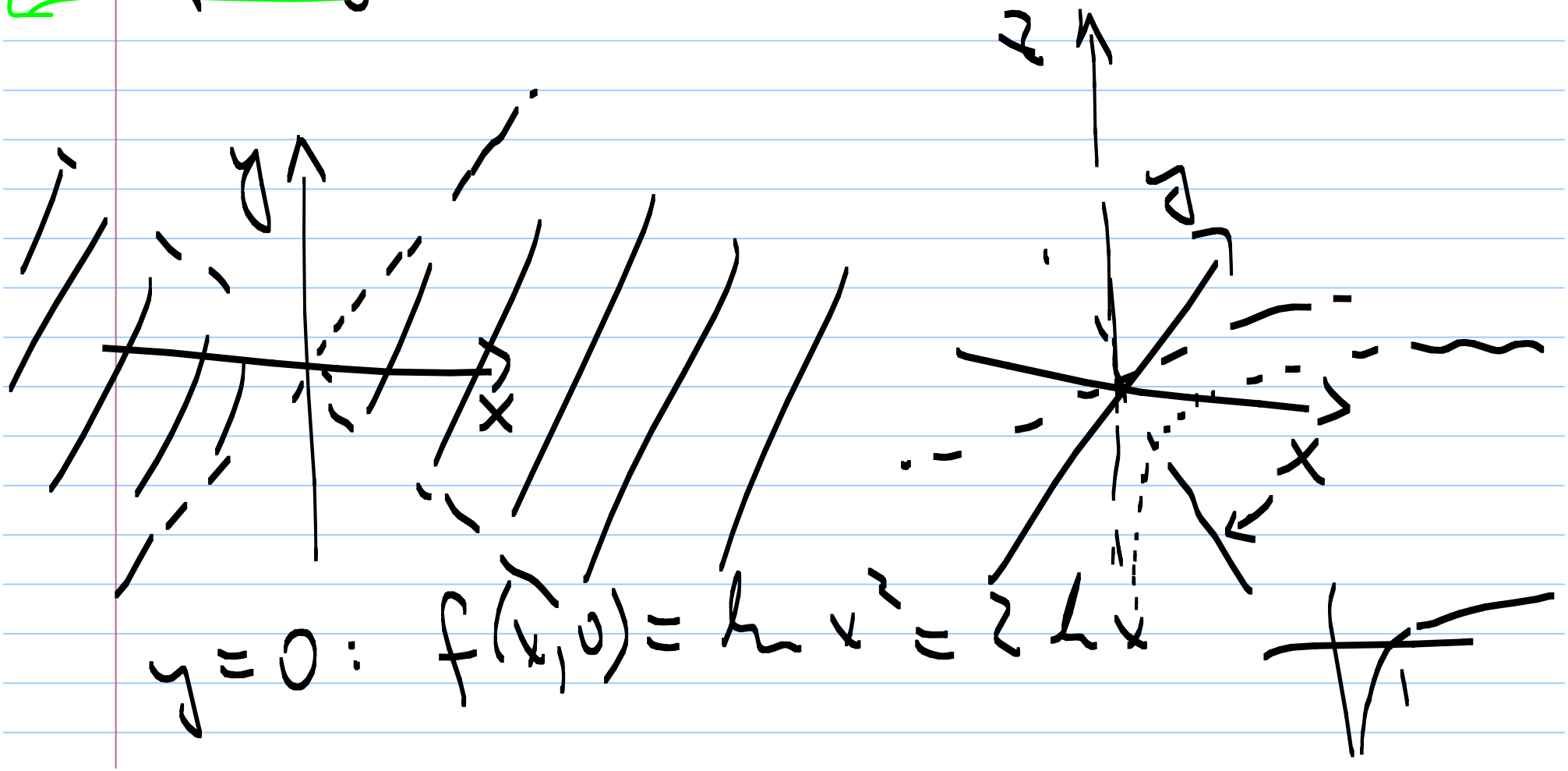
Nový nadpis 17.9.2013

$$z = f(x,y) = \ln(x^2 - y^2)$$

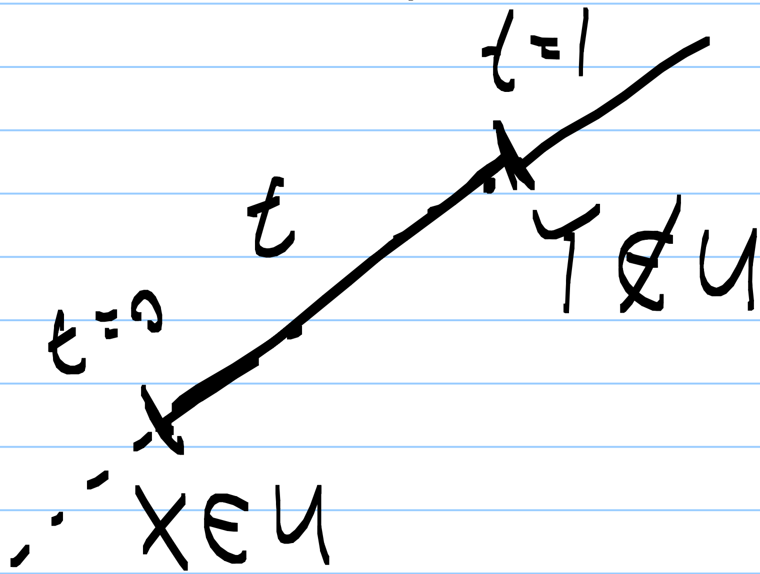


$y = 0: \quad f(x,0) = \ln x^2 = 2 \ln x$

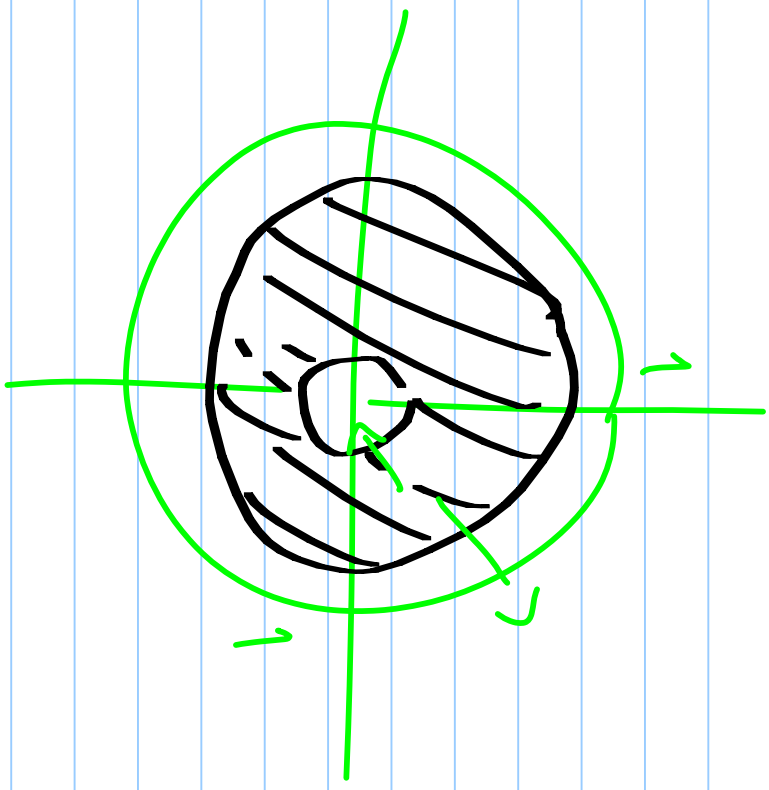
(8.3) $U \subset \mathbb{E}_n$ polo. souvislá m. b.

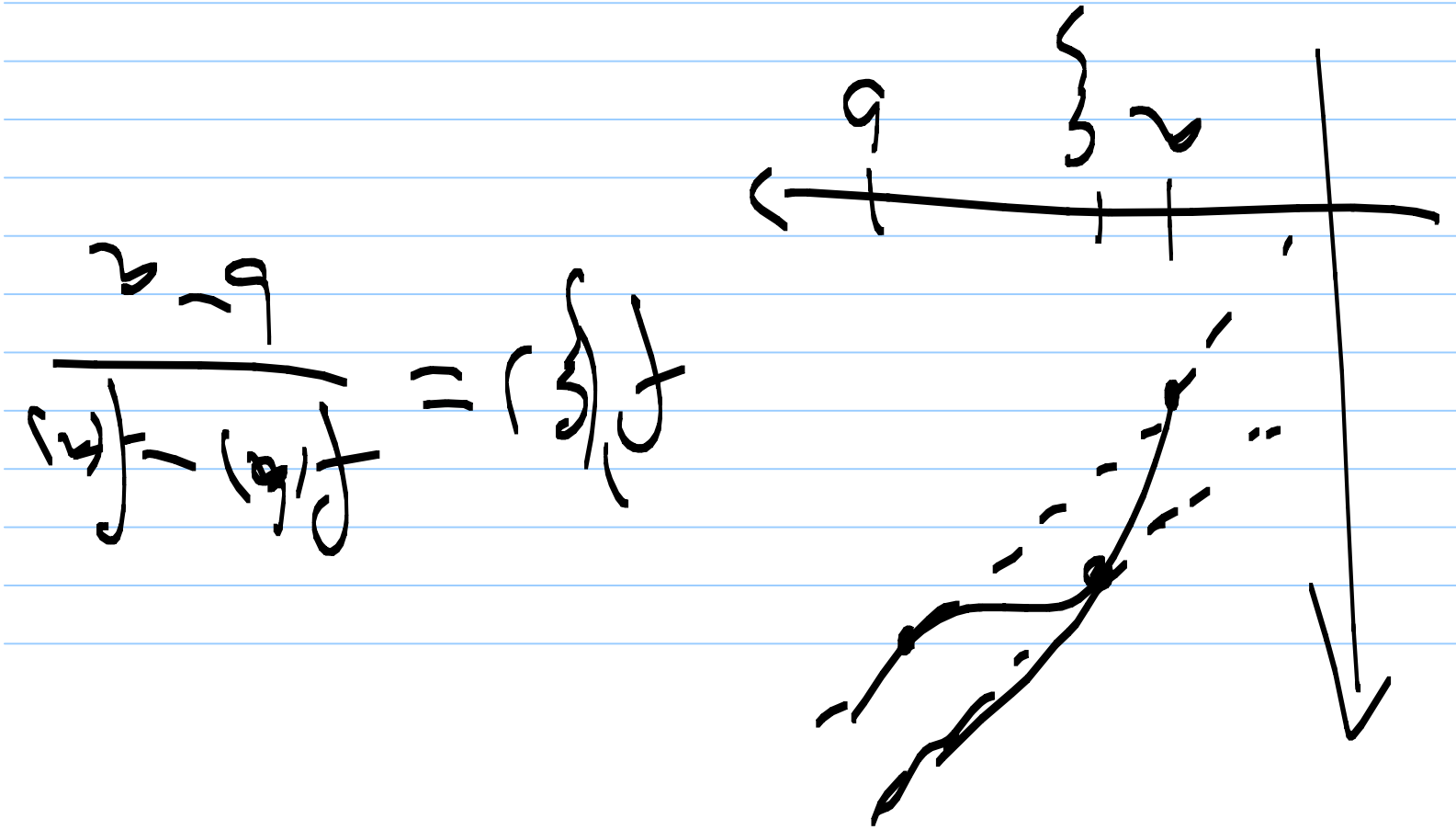
$U \neq \mathbb{E}_n$, $U \neq \emptyset$, $X \in U$, $Y \in \mathbb{E}_n \setminus U$

spojíme X Y



$t_{sup} = \sup\{t$ pro které $[0,t] \subset \varphi^{-1}(U)\}$





8.10. $c : \mathbb{R} \to \mathbb{R}^3$, $t \mapsto (t, t^2, t^3)$

v bodě $t = 1$ tečna:

$c(1) = (1, 1, 1)$

$c'(t) = (1, 2t, 3t^2)$

$c'(1) = (1, 2, 3)$

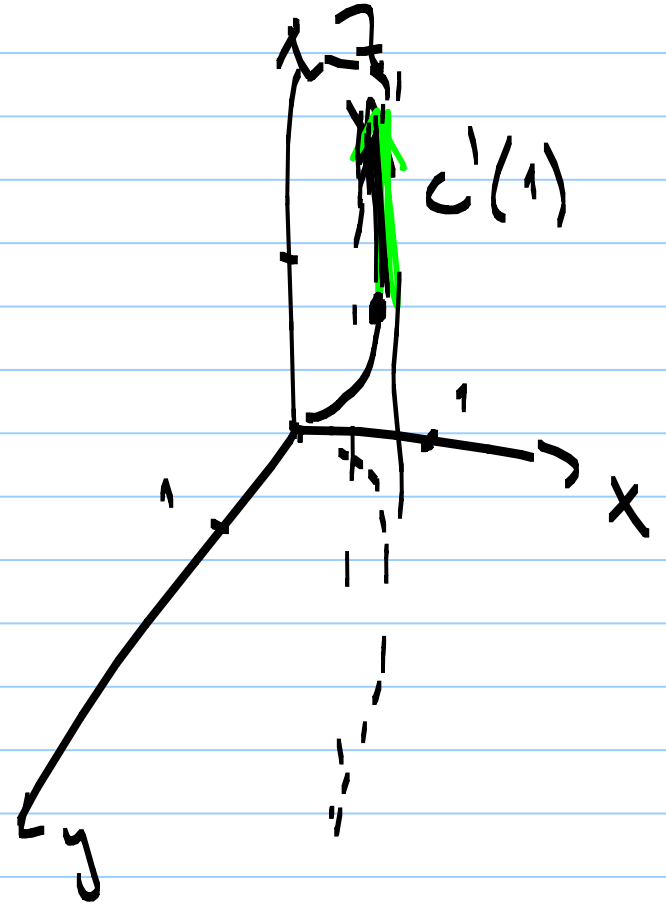
$x = 1 + s$

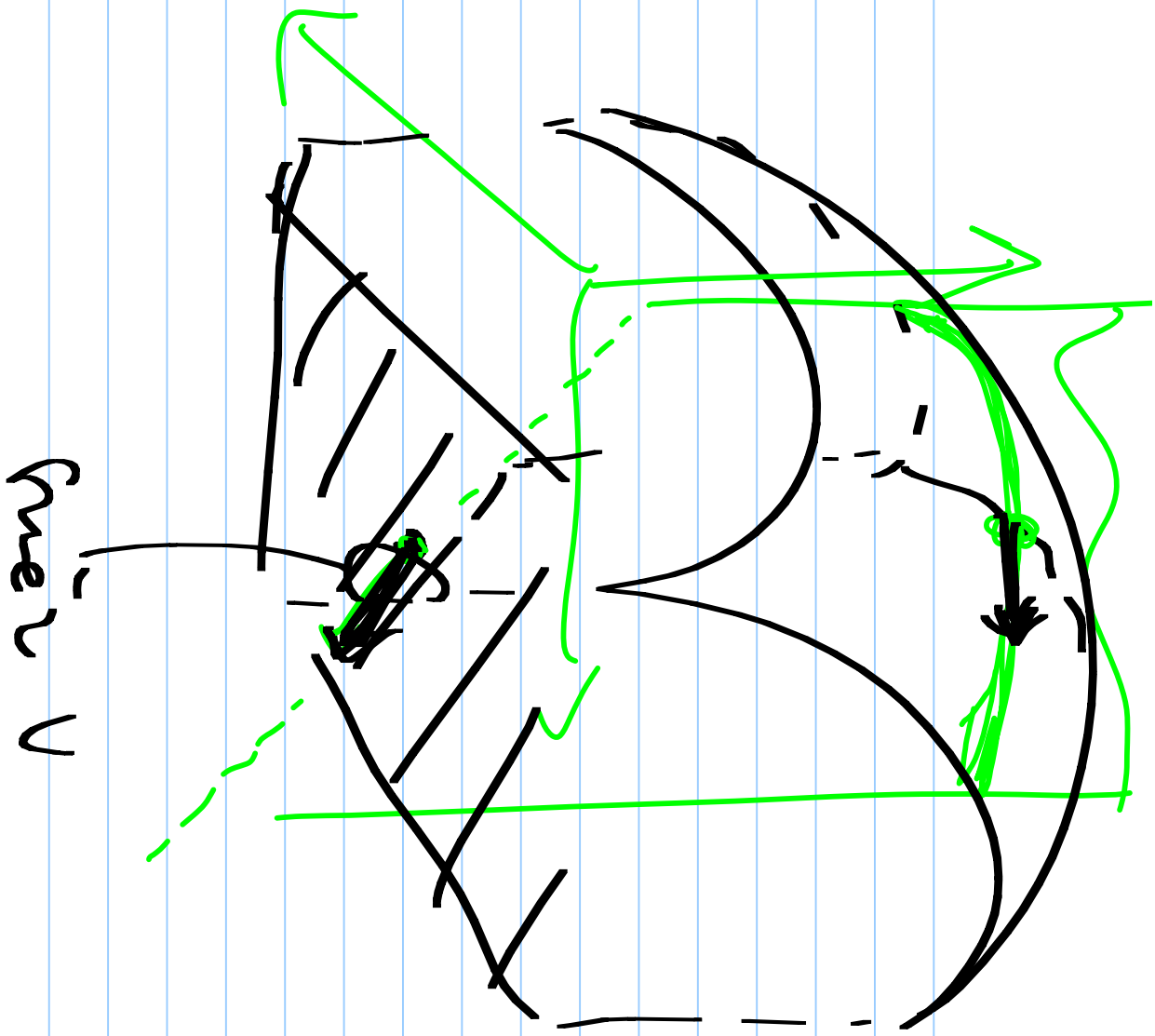
$y = 1 + 2s$

$z = 1 + 3s$

$2x - y = 1$

$3y - 2z = 1$





$$f(x,y) = x^2\sqrt{y}$$

$$\frac{\partial f}{\partial x}(x,y) = 2x\sqrt{y} \qquad \frac{\partial f}{\partial y}(x,y) = x^2 \frac{1}{2}\frac{1}{\sqrt{y}}$$