$f(x,y) = ye^{-xy}$
$f_x = -ye^{-xy}$
$f_y = -xye^{-xy} + e^{-xy}$
$P = (0,2)$
$f_x \wedge f_y$ son continuas $\Rightarrow$ f derivable $\Rightarrow$
$D_u f(0,2) = \boldsymbol{\nabla} f(0,2) \cdot u$, con $\|u\| = 1$
$u = (a,b)$
$1 = (-2,-1) \cdot (a,b) \Leftrightarrow$
$-2a - b = 1 \Leftrightarrow$
$2a + b = -1$
$a = \frac{-1-b}{2}$ $b = -1 - 2a$
$1 = \sqrt{\frac{-1-b}{2}^2 + (-1-2a)^2} \Leftrightarrow$
$1 = \frac{1-2b-b^2}{4} + 1 - 4a + a^2$
$1 = \frac{1-2b-b^2}{4} + \frac{4-8a+4a^2}{4}$
$1 = \frac{5-2b-8a-b^2+4a^2}{4}$