$(\cos\alpha, \sin\alpha, \|\mathbf{grad}\,f(a,b)\|)$

$(\cos\alpha, \sin\alpha) = \left(f_x(a,b), f_y(a,b)\right)$

$\|\mathbf{grad}\,f(a,b)\| = \max_{\|\vec{l}=1\|}\left\{\frac{\partial f(a,b)}{\partial \vec{l}}\right\}$

(a, b)

$z = f(x, y)$

$\mathbf{grad}\,f(a,b) = \left(f_x(a,b), f_y(a,b)\right)$

O

y

x