

Directional Derivatives and the Gradient



Question

What is the equation of the tangent plane to the surface $z = f(x, y)$ when $x = 2$ and $y = 3$?

- A. $-f_x(x, y)(x - 2) - f_y(x, y)(y - 3) + (z - f(x, y)) = 0$
- B. $-f_x(2, 3)(x - 2) - f_y(2, 3)(y - 3) + (z - f(2, 3)) = 0$
- C. $-f_x(2, 3)(x - 2) - f_y(2, 3)(y - 3) = 0$
- D. $f_x(2, 3)(x - 2) + f_y(2, 3)(y - 3) + (z - f(2, 3)) = 0$