- $z = f(x, y)$

- $x = g(t)$

- $y = h(t)$

- $g(3) = 2$

- $h(3) = 7$

- $g'(3) = 5$

- $h'(3) = -4$

- $f_x(2, 7) = 6$

- $f_y(2, 7) = -8$

- $\frac{\partial z}{\partial t}$ cuando $t = 3$

$\frac{\partial z}{\partial t}(3) = \frac{\partial f}{\partial x}(g(3), h(3)) \cdot \frac{\partial x}{\partial t}(3) + \frac{\partial f}{\partial y}(g(3), h(3)) \cdot \frac{\partial y}{\partial t}(3) =$

$f_x(g(3), h(3)) \cdot g'(3) + f_y(g(3), h(3)) \cdot h'(3) =$

$f_x(2, 7) \cdot g'(3) + f_y(2, 7) \cdot h'(3) =$

$6 \cdot 5 + (-8) \cdot (-4) = 30 - 32 = -2 \qquad \blacksquare$