The Chain Rule

Question

If $w = f(x, y)$, $x = t^2$, and $y = 5t + 3$, what is $\left.\dfrac{dw}{dt}\right|_{t=1}$?

A. $\left.\dfrac{dw}{dt}\right|_{t=1} = f_x(x, y) \cdot 2 + f_y(x, y) \cdot 5$

B. $\left.\dfrac{dw}{dt}\right|_{t=1} = f_x(x, y) \cdot 2t + f_y(x, y) \cdot 5$

C. $\left.\dfrac{dw}{dt}\right|_{t=1} = f_x(1, 8) \cdot 2 + f_y(1, 8) \cdot 5$

D. $\left.\dfrac{dw}{dt}\right|_{t=1} = f_x(1, 8) \cdot 2t + f_y(1, 8) \cdot 5$