$$\int_1^4 \int_0^1 (1 + 8xy)\, dx\, dy \ = \int_1^4 \left[x + 4x^2 y\right]_{x=0}^{x=1} dy = \int_1^4 (1 + 4y)\, dy$$
$$= \left[y + 2y^2\right]_1^4 = (4 + 32) - (1 + 2) = 33$$