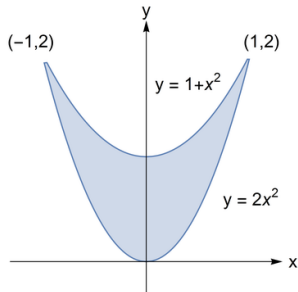


Double Integrals over General Regions



Question

Which of the following formulas does NOT compute the area of the region shown?



A. $\int_{-1}^1 \int_{2x^2}^{1+x^2} 1 \, dydx$

B. $2 \int_0^1 \int_{2x^2}^{1+x^2} 1 \, dydx$

C. $\int_0^1 \int_{-\sqrt{y}/2}^{\sqrt{y}/2} 1 \, dx dy + \int_1^2 \int_{-\sqrt{y-1}}^{-\sqrt{y-1}} dx dy + \int_1^2 \int_{\sqrt{y-1}}^{\sqrt{y}/2} 1 \, dx dy$

D. $2 \int_0^2 \int_{\sqrt{y-1}}^{\sqrt{y}/2} 1 \, dx dy$