

Quiz 6

1. Let \mathcal{D} be the unit disk. Suppose that the maximum of $f(x, y)$ on \mathcal{D} is 4. What is the largest possible value for $\int \int_{\mathcal{D}} f(x, y) dA$? (1 pt.)
 - (a) 4
 - (b) 4π
 - (c) $\frac{4}{\pi}$

2. Let \mathcal{W} be the region bounded by $z = 1 - y^2$, $y = x^2$ and the plane $z = 0$. Calculate the volume of \mathcal{W} as a triple integral in the order $dz dy dx$ (9 pt.)