

15.7 Triple Integrals in Cylindrical Coordinates

◎ 單選擇題

1. Find the **volume** of the region in the first octant bounded by the coordinate planes, the plane $x + y = 4$ and the cylinder $y^2 + 4z^2 = 16$ is:

(A) $6\pi + \frac{30}{3}$; (B) $8\pi - \frac{32}{3}$; (C) $6\pi - \frac{32}{3}$; (D) $8\pi - \frac{30}{3}$.

Ans: B [101 學年度]

◎ 填充題

1. The volume of the solid bounded by the paraboloid $z = 1 - x^2 - y^2$ and the plane $z = 0$ is _____

Ans: $\frac{\pi}{2}$ [103 學年度]