

7 l, m are straight lines in the three dimensional space.

$$\begin{cases} l : x = 1, y = z = 0 \\ m : x = 0, y + z = 1 \end{cases}$$

Q is a foot of a perpendicular dropped from a point P in a line l to a line m . C is a curved surface produced by a segment PQ when the point P moves in the line l . E is the space enclosed by the curved surface C and x - y , y - z , z - x planes. Find the volume of E .

