

Math 53 Discussion

Practice Problems: 15.7, triple integrals

1) Find $\iiint_E x dV$ where E is the region bounded by the paraboloid $x = 4y^2 + 4z^2$ and the plane $x = 4$.

2) Find the volume of the tetrahedron enclosed by the coordinate planes and the plane $2x + y + z = 4$.

3) Find the volume of the solid enclosed by the cylinder $x^2 + y^2 = 9$ and the planes $y + z = 5$ and $z = 1$.

- 1) $16\pi/3$
- 2) $16/3$
- 3) 36π