Q1 Evaluate \( \iiint_E (x^2 + y^2) \, dV \) where \( E \) is the region bounded above by the sphere \( x^2 + y^2 + z^2 = 1 \) and below by the cone \( z = \frac{1}{\sqrt{3}} \sqrt{x^2 + y^2} \).

Q2 Find the volume of the solid cut from the thick-walled cylinder \( 1 \leq x^2 + y^2 \leq 2 \) by the cones \( z = \pm \sqrt{x^2 + y^2} \).
Q3. Find the volume of the region that lies inside the sphere $x^2 + y^2 + z^2 = 2$ and outside the cylinder $x^2 + y^2 = 1$.

Q4. Find the volume of the solid that is bounded above by the cylinder $z = 4 - x^2$, on the sides by the cylinder $x^2 + y^2 = 4$, and below by the xy-plane.