Show your work and circle your final answer.

1. Find the volume of the solid that is bounded above by $z = 4 - x^2$, on the side by $x^2 + y^2 = 4$, and on the bottom by the xy-plane.

quiz.911115.1.eps quiz.911115.2.eps

2. Integrate $\rho = \sqrt{x^2 + y^2 + z^2}$ over the solid bounded by $\rho = 1 - \cos(\phi)$ in spherical coordinates.

quiz.911115.3.eps
quiz.911115.4.eps