Calculus III. S17 Quiz 9. Name _____ Time_____

Show all work for full or partial credit. Put a box around your final answer in each part.

1. Find the integral $\int_{-5}^{0} \int_{-\sqrt{25-x^2}}^{0} \int_{0}^{2} e^{(x^2+y^2)} \, dz \, dy \, dx.$

   First show the set up of the integral, using cylindrical coordinates, then evaluate.

2. Set up the integral of the function $f(x, y, z) = \sin(xy + z)$ over the tetrahedron with vertices $(0, 0, 0)$, $(1, 1, 0)$, $(0, 3, 0)$ and $(0, 3, 3)$.

   You don't have to integrate, just set up the triple integral.