Fake Quiz 1   Calc 3   10/16/2017

This is a fake quiz, this is only a fake quiz. In the event of an actual quiz, you'd have been given fair warning. Repeat: This is only a fake quiz.

1. Set up an iterated integral for the volume of the region bounded above the cone $z = \sqrt{x^2 + y^2}$ and below the top half of the sphere with radius 3 centered at the origin.

2. Set up an iterated integral for the volume of the region inside $x^2 + y^2 = 3$ above $z = 0$ and below $z = 10 - x$.

3. Set up an iterated integral for the volume of the solid enclosed between $z = x^2 + y^2$ and $z = 8 - x^2 - y^2$.

4. Set up an iterated integral for the volume of the tetrahedron with vertices (0,0,0), (4,0,0), (0,4,0), and (0,0,4).