
Instructions: Write complete solutions to the following problems in the space provided. Be sure to supply all the necessary steps that lead to your answers

1. Evaluate the iterated integral

Ans _____

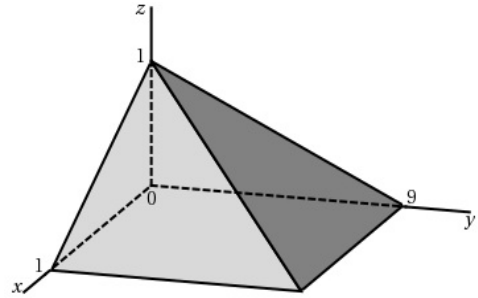
$$\int_0^2 \int_x^{2x} \int_0^y (18xyz) dz dy dx$$

2. Evaluate the triple integral.

Ans _____

$$\iiint_E 5xy dv, \text{ where } E \text{ is bounded by the parabolic cylinders}$$
$$y = x^2 \text{ and } x = y^2 \text{ and the planes } z = 0 \text{ and } z = 9x + y$$

3. Use a triple integral to find the volume of the tetrahedron shown Ans _____



4. Find the mass of the solid shown, where Ans _____
 $z = 64 - x^2$ and $y = 8 - x$ and the mass density is $\rho(x, y, z) = x$

