

1. Write  $\int_0^1 \int_0^{y^2} f(x, y) dx dy$  as an equivalent iterated integral with the order of integration reversed.

2. Find the volume of the solid bounded by the surface  $z = 6 + (x - 5)^2 + 4y$ , the planes  $x = 3$ ,  $y = 1$  and the coordinate planes.