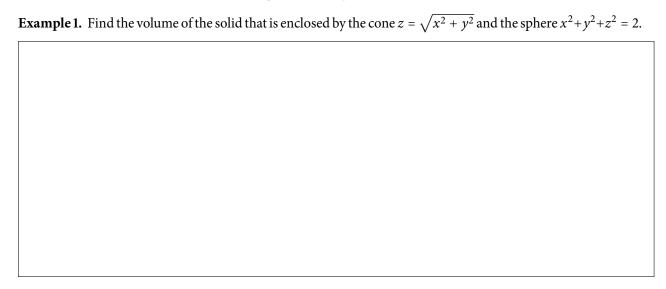
## Lesson 53. Triple Integrals in Cylindrical Coordinates, cont.



**Problem 1.** Using cylindrical coordinates, evaluate  $\iiint_E z \, dV$ , where E is enclosed by the paraboloid  $z = x^2 + y^2$  and the plane z = 4 in the first octant.

**Problem 2.** Using cylindrical coordinates, find the volume of the solid above the paraboloid  $z = x^2 + y^2$  and below the half-cone  $z = \sqrt{x^2 + y^2}$ .