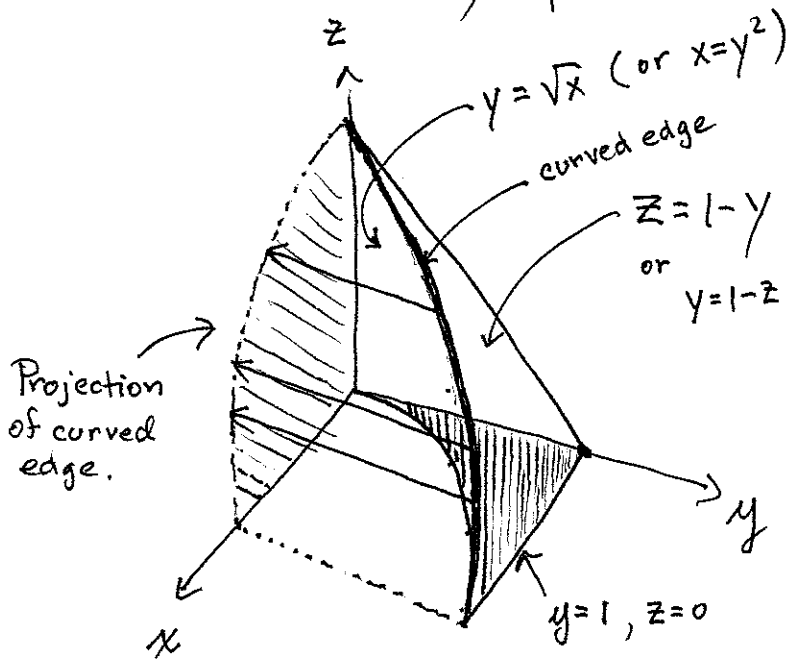


Problem #33, page 1026



The curved edge is the intersection of the surfaces

$$z = 1 - y \quad \text{or} \quad y = 1 - z$$

$$x = y^2 \quad \text{or} \quad y = \sqrt{x}$$

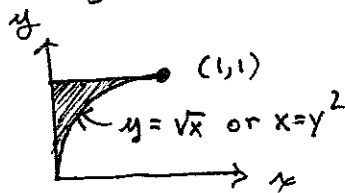
Thus, on the curved edge,

$$x = (1 - z)^2$$

This equation describes the projection of the curved edge.

Projection of region of integration:

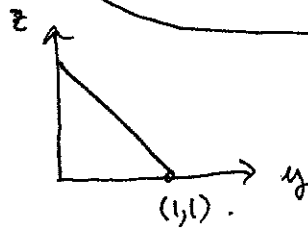
into x - y -plane
($z=0$)



$$\int_0^1 \int_{\sqrt{x}}^1 \int_0^{1-y} f \dots dz dy dx$$

$$\Rightarrow \int_0^1 \int_0^{y^2} \int_0^{1-y} f \dots dz dx dy$$

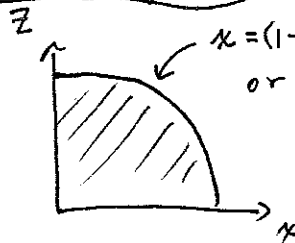
into y - z -plane
($x=0$)



$$\int_0^1 \int_0^{1-y} \int_0^y f \dots dx dz dy$$

$$\Rightarrow \int_0^1 \int_0^{1-z} \int_0^{y^2} f \dots dx dy dz$$

into x - z -plane



$$\int_0^1 \int_{\sqrt{x}}^{(1-z)^2} \int_{\sqrt{x}}^{1-z} f \dots dy dx dz$$

$$\int_0^1 \int_0^{1-\sqrt{x}} \int_{\sqrt{x}}^{1-z} f \dots dy dz dx$$