1
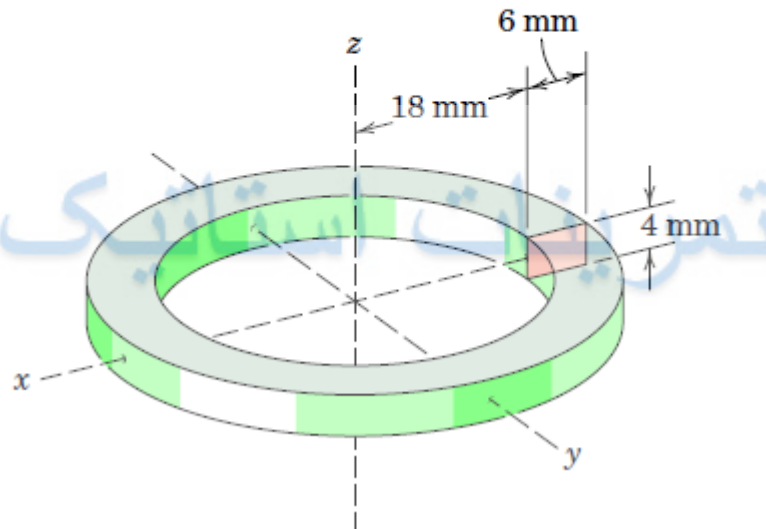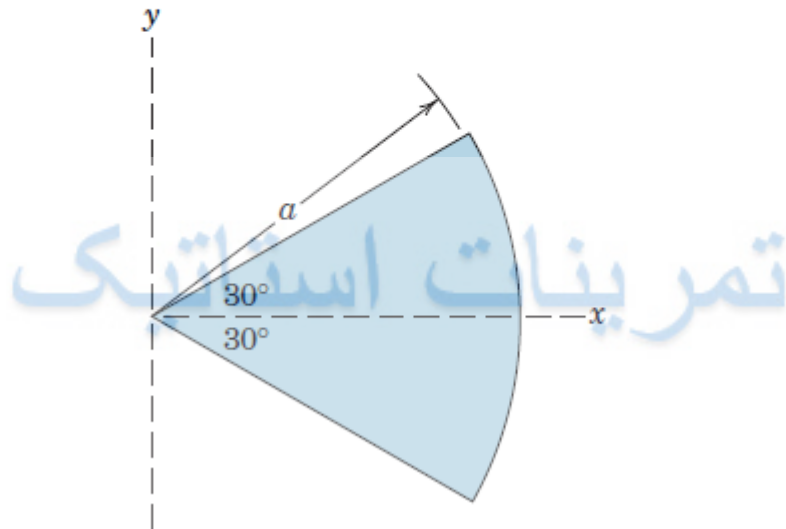
Using the methods of this article, determine the surface area A and volume V of the body formed by revolving the rectangular area through 360° about the z-axis.

2
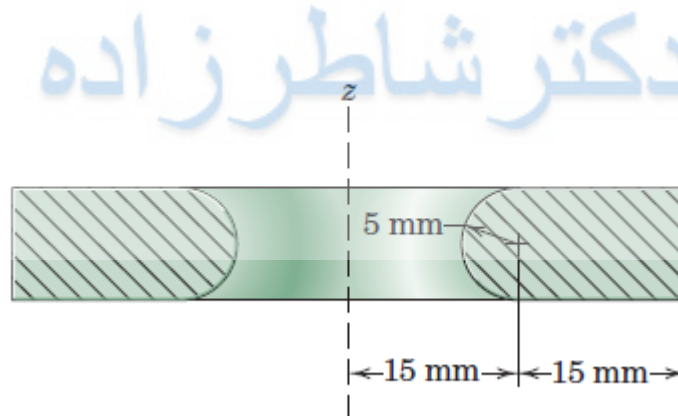
The area of the circular sector is rotated through 180° about the y-axis. Determine the volume of the resulting body, which is a portion of a sphere.
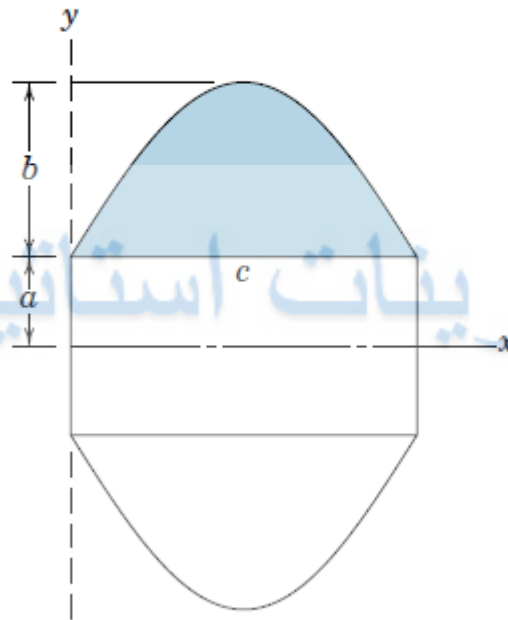

3

The body shown in cross section is a large neoprene washer. Compute its surface area A and volume V.

4

The shaded area is bounded by one half-cycle of a sine wave and the axis of the sine wave. Determine the volume generated by completely revolving the area about the x-axis.