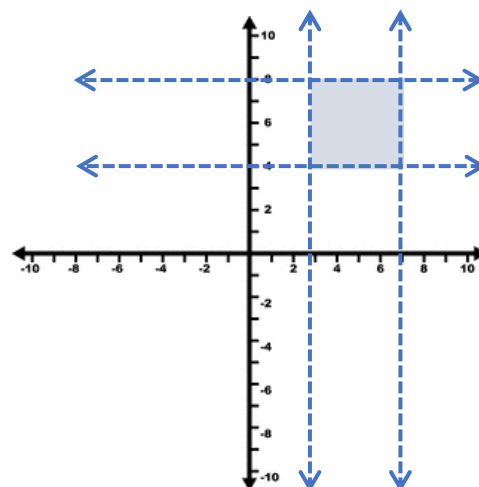


TOPIC 18-4: SOLIDS OF REVOLUTION**EXAMPLE 1:**

The region is defined by the lines:
 $y = 8$, $y = 4$, $x = 3$, $x = 7$

Perimeter of the region:

Area of the region:



Describe the geometric solid formed by revolving the region about the x-axis:

Sketch this geometric solid:

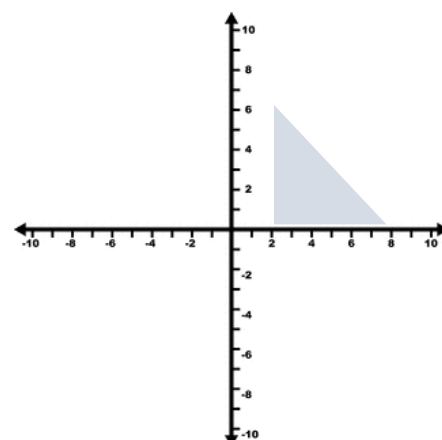
Volume of the geometric solid:

EXAMPLE 2:

Sketch and write the equations for the lines bounding the shaded region.

Perimeter of the region:

Area of the region:



What geometric figure is formed by revolving the region about the x-axis?
 Sketch this geometric figure:

Volume of the geometric solid:

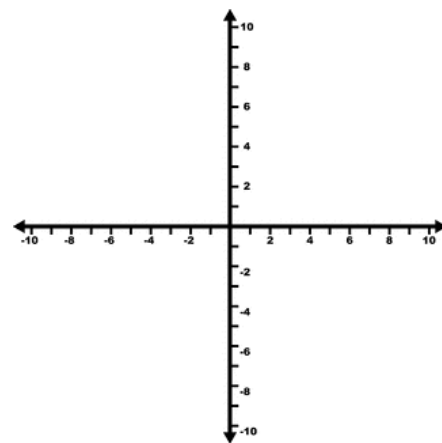
Surface area of the geometric solid:

EXAMPLE 3:

Sketch and shade in the region bounded by the curve $y = \sqrt{36 - x^2}$ and the line $y = 0$.

Perimeter of the region:

Area of the region:



What geometric figure is formed by revolving the region about the x-axis?
Sketch this geometric figure:

Volume of the geometric solid:

Surface area of the geometric solid: