

Calculus Worksheet

Your Name:

Given the description, **a)** Sketch the solid.
b) Find its volume.

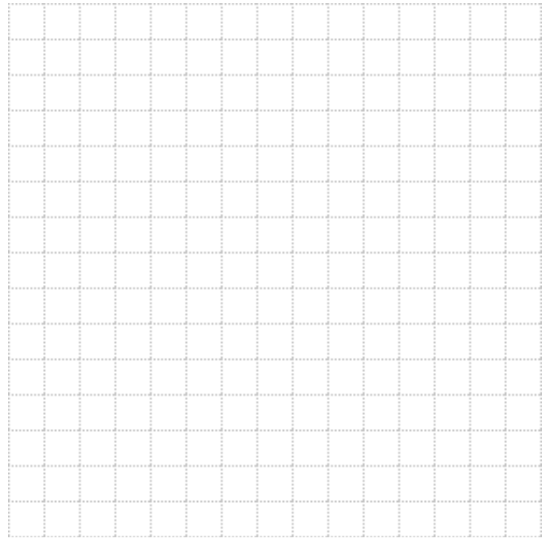
1. region bounded by:

$$y = \frac{5}{2} - x$$

$$y = \frac{1}{x}$$

revolved about:

x -axis



2. region bounded by:

$$x = 2 - y^2$$

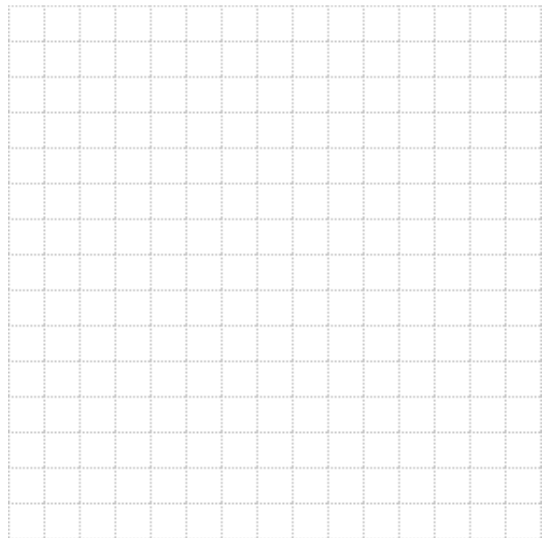
$$x = 3 + \frac{1}{2}y^2$$

$$y = 0$$

$$y = 1$$

revolved about:

$$x = -2$$

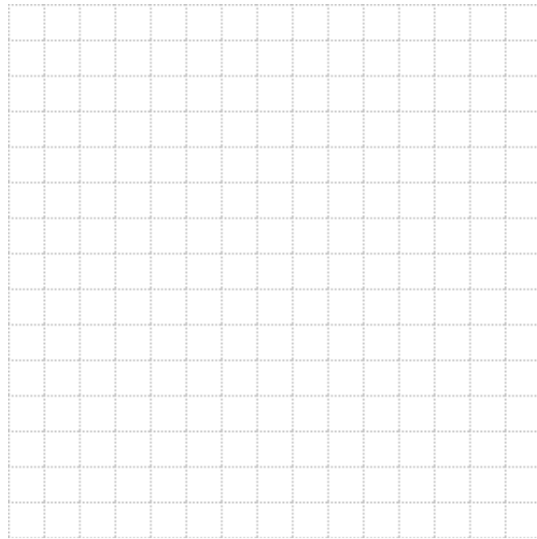


3. base of solid is region bounded by:

$$x = 5$$

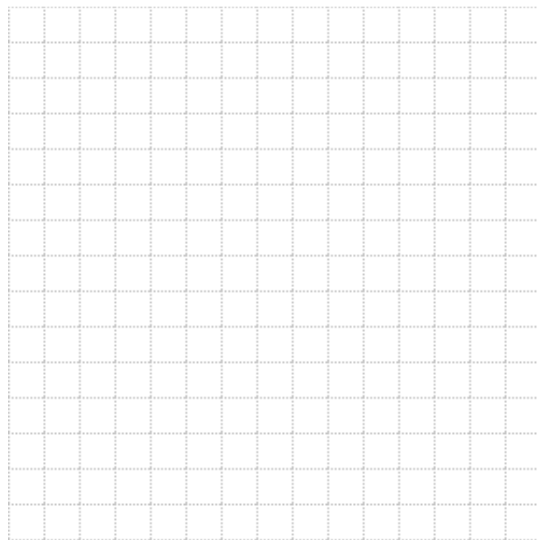
$$y = x \quad y = 1$$

every cross-section perpendicular to x -axis is an equilateral triangle with one edge touching base



4. a right elliptical cone with a height of 5 and a base described by the equation

$$x^2 + 25y^2 = 100$$



5. base of solid is region bounded by:

$$y = \ln x \quad y = 2$$

$$x = 0 \quad y = 0$$

every cross-section perpendicular to y -axis is a square with one edge touching base

