Sec 7.3:
Finding Volumes
(Day 2)

Find the volume of the solid whose base is bounded by the graphs of the functions below with cross sections taken perpendicular to the x-axis being rectangles with a height of 1 cm.

$f(x) = x + 1$ $\qquad$ $g(x) = x^2 - 1$

Find the volume of the solid generated by revolving the region bounded by the functions below about the x-axis.

$$f(x) = \sin x + 1, \quad 0 \le x \le \pi \qquad\qquad g(x) = 1$$

Sketch the graph and find the volume of the solid formed by revoling the region bounded by the function below about the x-axis.

$$y = \sqrt{\sin x}, \qquad 0 \le x \le \pi$$

Find the volume of the solid whose base is the region bounded by the functions below and whose cross sections (perpendicular to the x-axis) are equilateral triangles.

$$y = 1 - \frac{x}{2} \qquad y = \frac{x}{2} - 1$$

Find the volume of the solid formed by revolving the region bounded by the functions below about the y-axis.

$$y = x^2 + 1 \qquad y = 0 \qquad x = 0 \qquad x = 1$$