AP Calculus AB
Cross Sectional Area Additional Problems   **Name:** _____

1. A solid has as its base the circle $x^2 + y^2 = 9$, and all cross sections parallel to the y-axis are squares. Find the volume of the solid.

2. The base of a solid is the region bounded by the parabola $x^2 = 8y$ and the line $y = 4$, and each plan section perpendicular the y-axis is an equilateral triangle. Find the volume of the solid.

3. The base of a solid is the region enclosed by a triangle whose vertices are (0, 0), (4, 0) and (0, 2). The cross sections are semicircles perpendicular to the x-axis. Find the volume of the solid.