

Quiz**Name**

1. Determine the area of the parabolic section obtained by cutting the graph of $y = x^2$ with the line $y = 4$. Do first by using Archimedes's theorem and then check your result by evaluating an integral.

2. Find the dimensions of the rectangle of largest area that can be inscribed in an equilateral triangle of side L if one side of the rectangle lies on the base of the triangle.