

PreAP PreCal Log Week 6.3

Statuary Hall is an elliptical room in the United States Capitol in Washington, DC. The room is also called the *Whispering Gallery* because a person standing at one focus of the room can hear even a whisper spoken by a person standing at the other focus. Statuary Hall is 46 feet wide and 97 feet long.

1. Find an equation that models the shape of the room.
2. How far apart are the two foci?
3. What is the area of the floor of the room? (The area of an ellipse is $A = \pi ab$)