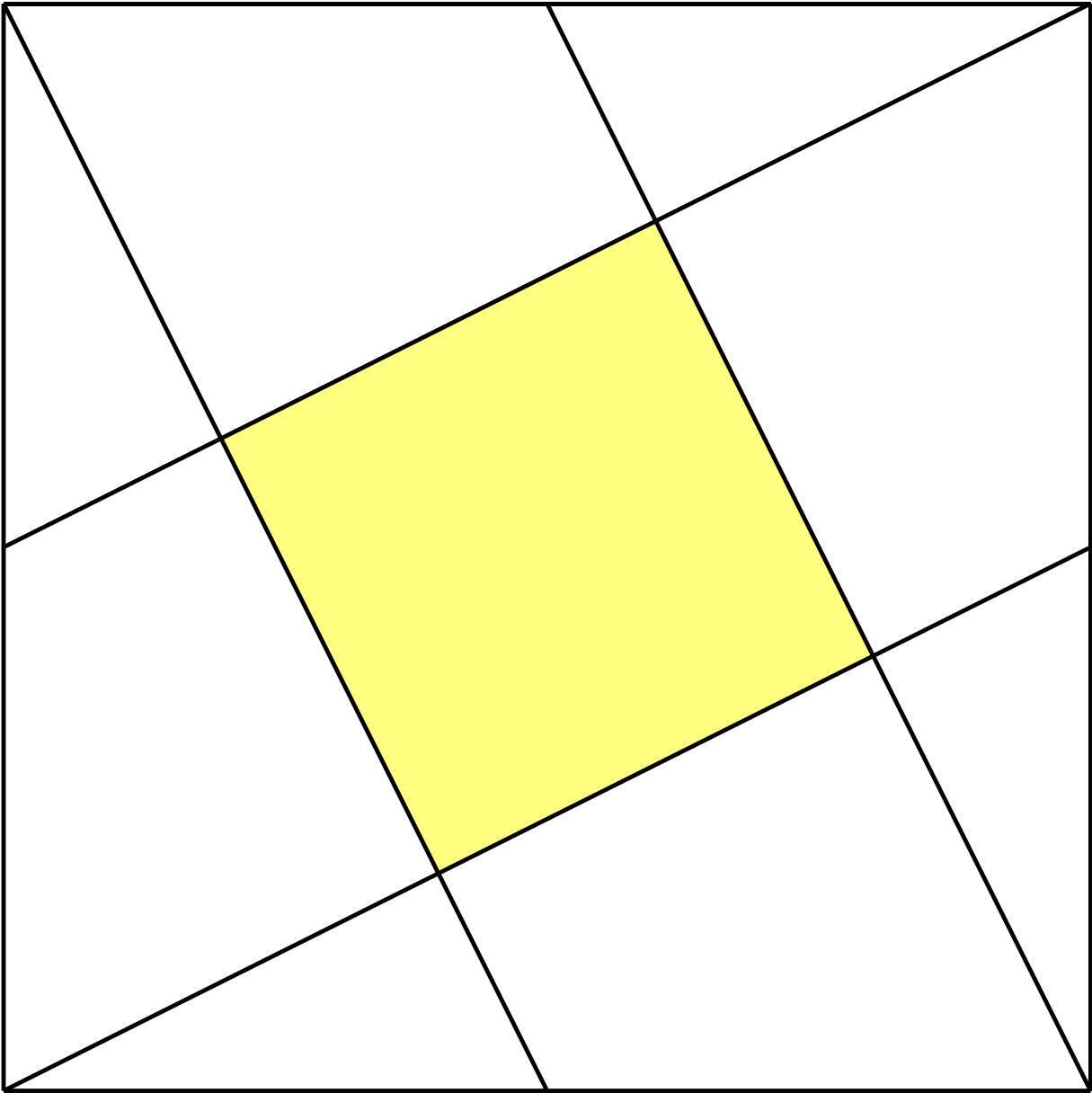Big Square Little Square

The big square has area of 400 square units. The points on the sides are midpoints, connected to the corners as shown in the figure. Find the area of the yellow square.

When you have solved this problem, go to Room 1009 to present your solution to the Master Teacher.