## Problem 2: Triangle in a Square

Find the area of the largest equilateral triangle that fits in the unit square (square of side 1 unit).

As always, show your work, fully explain and justify your answer.

Posting Date 9/12/16. Submit solutions to Noah Aydin, Mathematics Department, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 4 pm on $9 / 23 / 16$.

