

Problem 2: Radius and Area

Define the radius r of a polygon to be the largest distance from the center to the perimeter. The area of a square according to this definition is $A = 2r^2$. Find the regular polygon whose area is given by the formula $A = 3r^2$.

As always, show your work, fully explain and justify your answer. A solution mainly obtained by computers or calculators will not be accepted.

Posting Date 1/20/2019. 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 2/1/2019.