Honors Geometry

20.

Find the apothem of the regular octagon then find it's area.



21.

A square is formed by joining the midpoints of alternate sides of a regular octagon. A side of the octagon is 10.

- a. Find the area of the square.
- b. Find the area of the shaded region.



Honors Geometry

22.

Given a set of four concentric regular hexagons, each with a radius of 1 unit longer than that of the next smaller hexagon (with the smallest hexagon having a radius of 1), find the area of the shaded regions.



24.

A square and a regular hexagon are inscribed in the same circle.

- a. Find the ratio of a side of the square to a side of the hexagon.
- b. Find the ratio of the area of the square to the area of the hexagon.

