

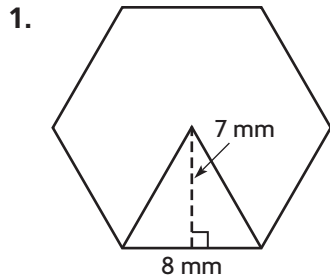
Name _____

Area of Regular Polygons



COMMON CORE STANDARD—6.G.1
Solve real-world and mathematical problems involving area, surface area, and volume.

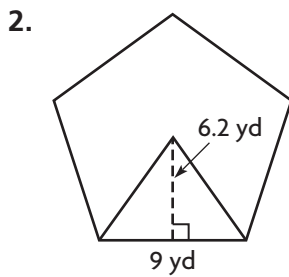
Find the area of the regular polygon.

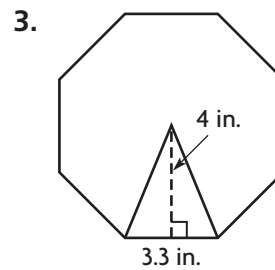


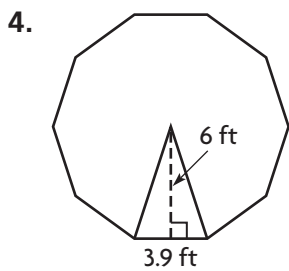
number of congruent triangles inside the figure: 6

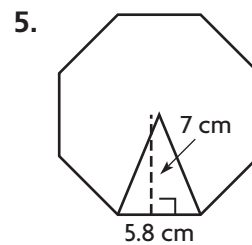
area of each triangle: $\frac{1}{2} \times \underline{8} \times \underline{7} = \underline{28} \text{ mm}^2$

area of hexagon: 168 mm²









Problem Solving

6. Stu is making a stained glass window in the shape of a regular pentagon. The pentagon can be divided into congruent triangles, each with a base of 8.7 inches and a height of 6 inches. What is the area of the window?

7. A dinner platter is in the shape of a regular decagon. The platter has an area of 161 square inches and a side length of 4.6 inches. What is the area of each triangle? What is the height of each triangle?
