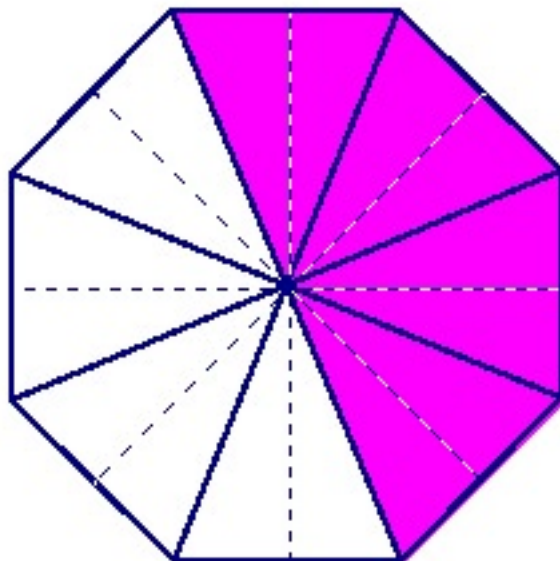


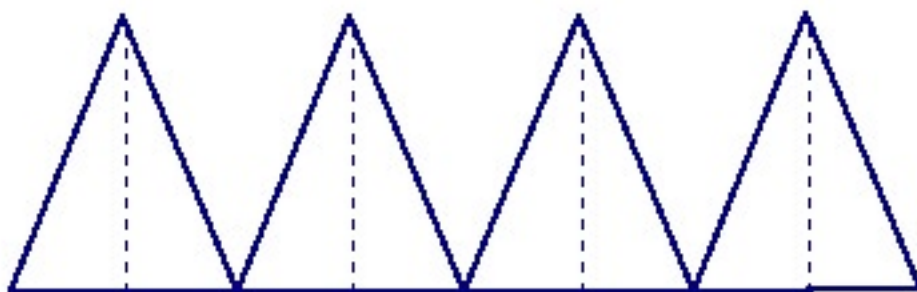
Area of Regular Polygons

The vertices of this regular polygon have been connected to the center (continuous lines), forming triangles. The dotted lines mark the perpendicular distance from each side to the center. This distance is called the apothem. Notice that half of the triangles are one color and the other half of the triangles are a different color.

- *How many sides does the polygon have?*
- *How many triangles are formed?*
- *How many of each color?*



- a) Cut the polygon into triangles along the continuous lines (NOT the dotted lines) and arrange the triangles of one color so that their bases are on the same line.



- b) Put the triangles of the other color "upside down" to fill in. You will form a parallelogram with the triangles of two colors.