

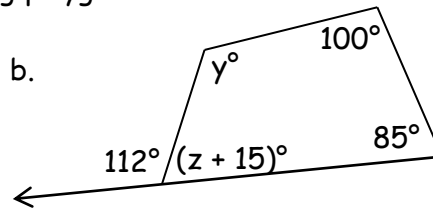
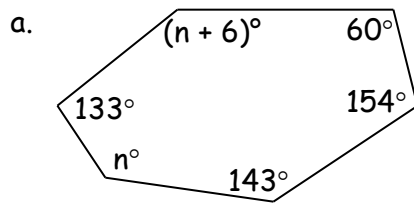
10.4-10.5 Angles in a Polygon  
Pre-AP Geometry

Name \_\_\_\_\_  
Period \_\_\_\_\_ Date \_\_\_\_\_

**ELABORATE**

1. Each of the following is a regular polygon. Find the number of sides.
- a. interior angle of  $162^\circ$                       b. exterior angle of  $40^\circ$

2. Find the value of the variables in the following polygons.



3. The exterior angles of a pentagon are in a ratio of 2:2:3:4:4. Find the largest interior angle.

4. The measure of each interior angle of a regular polygon is 8 times that of an exterior angle. How many sides are in the polygon?

5.  $ABCDE$  is a regular polygon.  $\overline{EA}$  and  $\overline{CB}$  are extended to intersect at  $P$ . Find the measure of  $\angle APB$  and  $\angle PAB$ .

