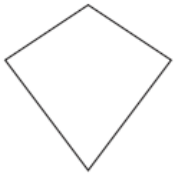
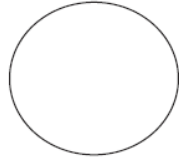


1. Determine if the shape is a polygon. If it is a polygon, state if it is *concave* or *convex*.

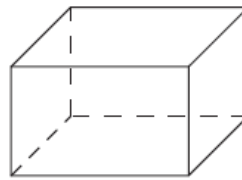
a.



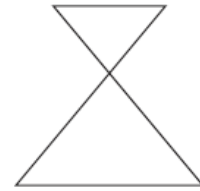
b.



c.

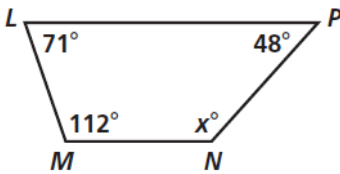


d.

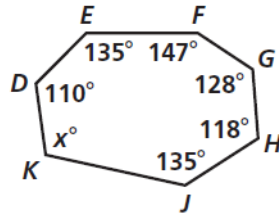


2. Find the value of the variable.

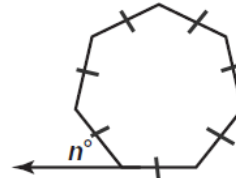
a.



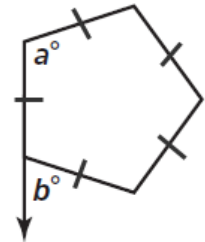
b.



c.



d.



3. Find the interior and exterior angle sums of for each polygon.

a. octagon

b. dodecagon

c. 42-gon

4. Find the measure of 1 interior angle and 1 exterior angle of each *regular* polygon.

a. hexagon

b. nonagon

c. 15-gon

5. The interior angle sum is given for each polygon. How many sides does each polygon have?

a. 1080

b. 1980

c. 2880

6. Find the number of sides of each regular polygon based on the given information.

a. 1 exterior angle is  $36^\circ$ .

b. 1 interior angle is  $162^\circ$ .

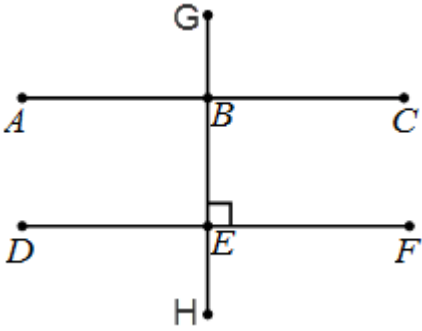
c. 1 interior angle is  $150^\circ$ .

**Practice Proofs:** Complete a two-column, Paragraph, or Flow Chart Proof.

7. Given:  $\angle ABG \cong \angle CBG$   
 $\angle FEB$  is right

Prove:  $\overline{AC} \parallel \overline{DF}$

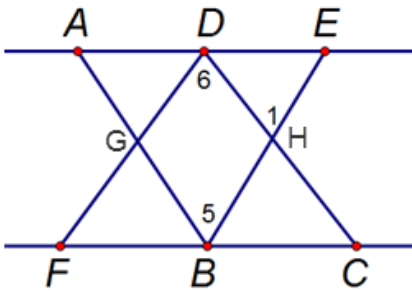
Hint: How are angles  $\angle ABG$  and  $\angle CBG$  both right angles?



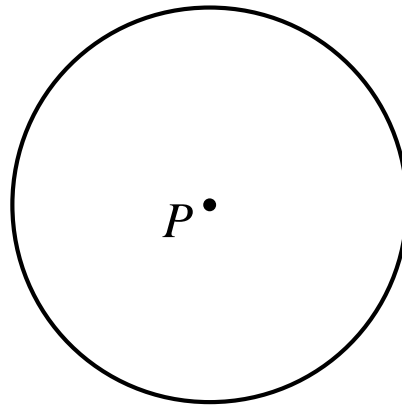
8. Given:  $\overline{AB} \parallel \overline{CD}$   
 $\overline{DF} \parallel \overline{BE}$

Prove:  $\angle 5 \cong \angle 6$

Hint: Look for a "Z" and "F"



9. Construct an inscribed square inside circle P.



10. Construct an inscribed regular hexagon in circle P.

