

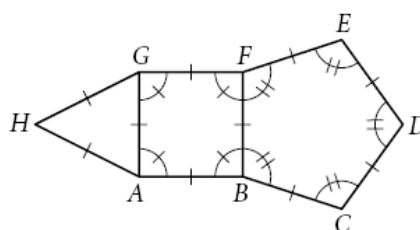
Name: _____

Polygons

1) Find the number of sides of a regular polygon with interior angles of:

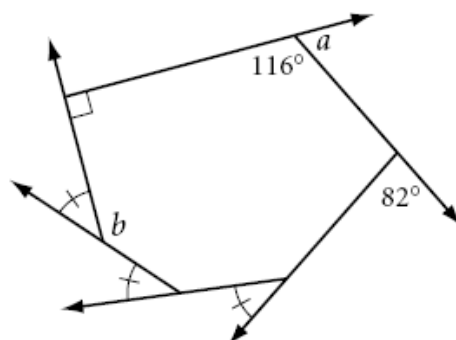
- 1) 150°
- 2) 175°
- 3) 174°
- 4) 162°

2) Find $m\angle HGA$.

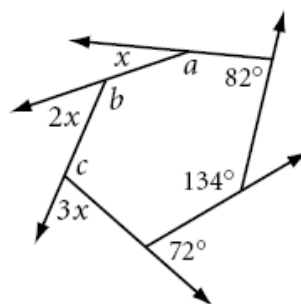


3) Find each lettered angle measure.

1)

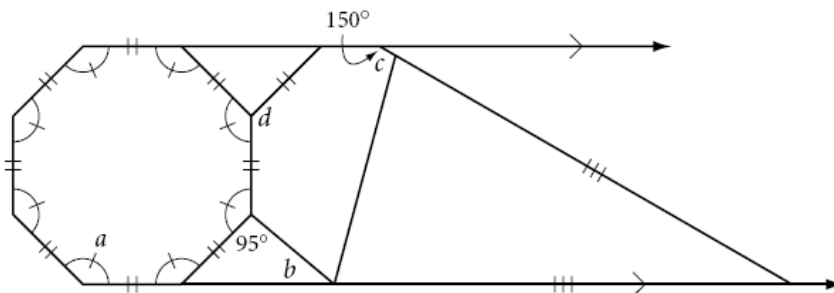


2)



4) One exterior angle of a regular polygon measures 10° . What is the measure of each interior angle? How many sides does the polygon have?

- 5) The sum of the measures of the interior angles of a regular polygon is 2340° . How many sides does the polygon have?
- 6) How many sides does a regular polygon have if each exterior angle measures 30° ?
- 7) If the sum of the measures of the interior angles of a polygon equals the sum of the measures of its exterior angles, how many sides does it have?
- 8) If the sum of the measures of the interior angles of a polygon is twice the sum of its exterior angles, how many sides does it have?
- 9) How many sides does a polygon have if the sum of the measures of the interior angles is 3960° ?
- 10) Find each lettered angle measure.



- 11) If the number of sides of a regular polygon doubles, what happens to the measure of each exterior angle?
- 12) Calculate the size of the exterior angles of a regular polygon which has interior angles of:
 - 1) 150°
 - 2) 175°
 - 3) 162°
 - 4) 174°