Lessons 5.1 & 5.2 Assignment Name:_____

1) Use the Polygon Sum Conjecture to complete the table.

Number of Sides of polygon	3	4	5	6	7	8	9	10	11	20	55	100
Sum of measures of angles												

2) What is the measure of each angle of an equiangular polygon? Complete the table.

Number of Sides of equiangular polygon	3	4	5	6	7	8	9	10	12	16	100
Measure of each angle of equiangular polygon											

3) What is the sum of the measures of the exterior angles of a decagon?

4) What is the measure of an exterior angle of an equiangular pentagon?

5) What is the measure of an exterior angle of an equiangular hexagon?

6) How many sides does a regular polygon have if each exterior angle measures $24°$?

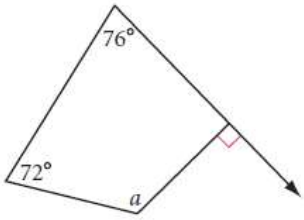
7) How many sides does a polygon have if the sum of its interior angle measures is $7380°$?

8) How many sides does an equiangular polygon have if each interior angle measures $156°$?

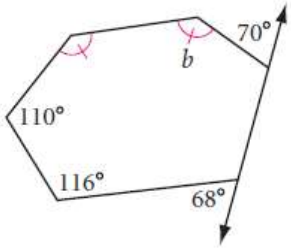
9) How many sides does a polygon have if the sum of its angle measures is $2700°$?

Calculate the measure of each lettered angle.

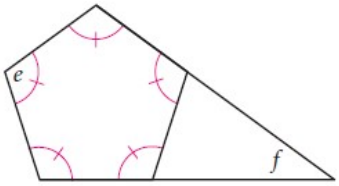
10) $a =$_____



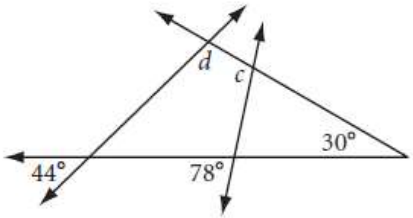
11) $b =$_____



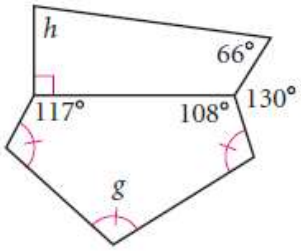
12) $e =$_____
$f =$_____



13) $c =$_____
$d =$_____

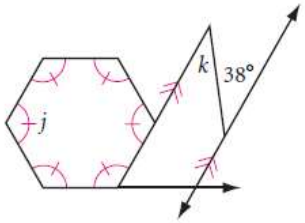


14) $g =$_____
$h =$_____

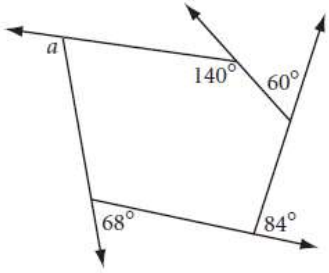


15) $j =$_____

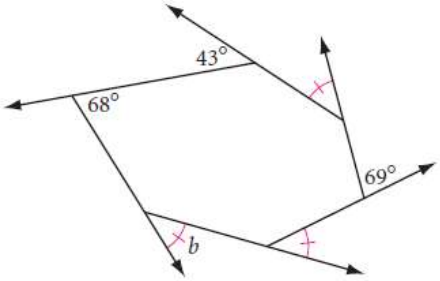
$k =$_____



16) $a =$_____

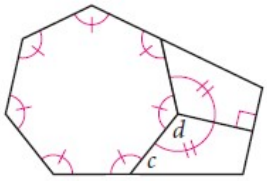


17) $b =$_____



18) $c =$_____

$d =$_____

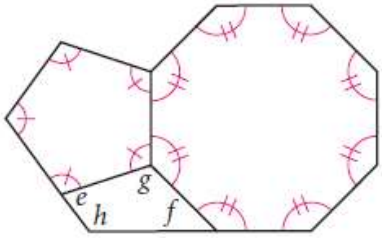


19) $e =$_____

$f =$_____

$g =$_____

$h =$_____

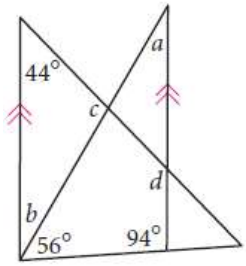


20) $a =$_____

$b =$_____

$c =$_____

$d =$_____



21) $a =$_____

$b =$_____

$c =$_____

$d =$_____

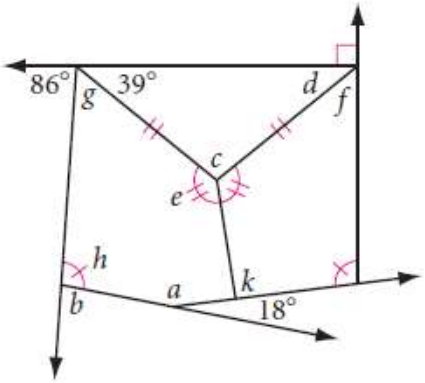
$e =$_____

$f =$_____

$g =$_____

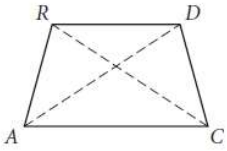
$h =$_____

$k =$_____



22) $\angle RAC \cong \angle DCA, \overline{CD} \cong \overline{AR}$

$\Delta RAC \cong \Delta$_____ by _____



23) $\overline{DT} \cong \overline{RT}, \overline{DA} \cong \overline{RA}$

$\Delta DAT \cong \Delta$_____ by _____