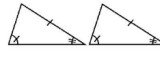


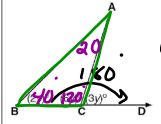
Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Mrs. Jacknis Midterm Review

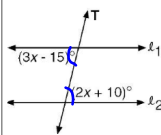
**Review for Midterm #3**

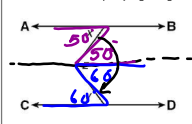
**Directions:** Answer each question completely. Show all work Write your final answer on line provided. Answers with no work will not receive hw credit.

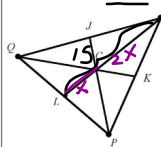
1) The incenter of a triangle is the points of concurrency of what lines of a triangle?  
 \_\_\_\_\_  
 Answer: 3 bisectors

2) What is the congruence correspondence, if any, that will prove the giva triangles congruent?  
  
 Answer: aas

3) In the accompanying diagram of  $\triangle ABC$ , side  $\overline{BC}$  is extended to D,  $m\angle B = 2y^\circ$ ,  $m\angle BCA = 6y^\circ$ , and  $m\angle ACD = 3y^\circ$ . What is  $m\angle A$ ?  
  
 Answer: 20°

4) What is the value of x that makes  $\ell_1 \parallel \ell_2$ ?  
  
 Answer: 25

5) In the accompanying diagram,  $\overline{AB} \parallel \overline{CD}$ ,  $m\angle x = 50^\circ$ , and  $m\angle y = 60^\circ$ . What is  $\angle z$ ?  
  
 Answer: 110°

6) Point C is the centroid of triangle PQR below. If  $RL = 15$ , what is  $CL$ ?  
  
 Answer: 5

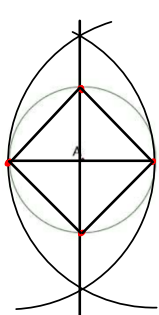
7) What is the image of point  $(3, 4)$  when reflected in the y-axis?  
 Answer:  $(-3, 4)$

8) What are the coordinates of point P, the image of point  $(x, -4)$  after a reflection in the line  $y = x$ ?  
 Answer:  $(-4, 3)$

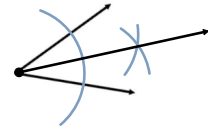
9) What is the image of point  $(-3, -1)$  under a  $R_{180}$ ?  
 Answer:  $(3, 1)$

10) A translation moves  $P(3, 5)$  to  $P'(6, 1)$ . What are the coordinates of the image of point  $(-3, -5)$  under the same translation?  
 Answer:  $(0, -9)$

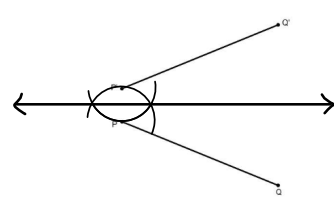
11) Construct a square inscribed in the circle given below.



12) Bisect the angle below.



13)  $\overline{P'Q'}$  is the image of  $\overline{PQ}$  after a line reflection. Use a compass and straightedge to construct the line of reflection.



14) Construct the center of rotation for the transformation given below.

