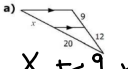



Name: _____ Date: _____
 Mrs. Jacknis Midterm Review #2

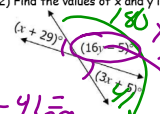
Directions: Answer each of the following questions completely. Show all work.

1) Solve for x.

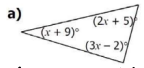
a)  $\frac{x}{20} = \frac{9}{12}$ $X=15$

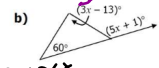
b)  $\frac{15}{x-3} = \frac{18}{x+2}$
 $15(x+2) = 18(x-3)$
 $15x+30 = 18x-54$
 $84 = 3x$
 $X=28$

2) Find the values of x and y in the diagram below.


 $x+29 = 3x+5$ $24 = 2x$ $X=12$
 $180 - 41 = 139$ $169 - 5 = 164$ $164 - 139 = 25$ $25 = 2x$ $X=12.5$

3) Find the missing variable in the diagram below.

a)  $x+9+2x+5+3x-2=180$
 $6x+12=180$
 $6x=168$
 $X=28$

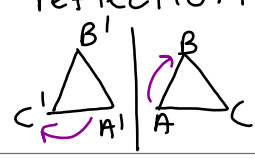
b)  $60+3x-13=5x+1$
 $47=2x+1$
 $46=2x$
 $X=23$

4) Solve for g.

 $36+56 \rightarrow 92$
 $g=92^\circ$

5) Which rigid motion does not preserve orientation?

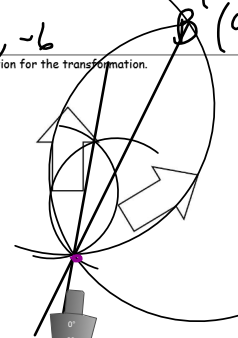
reflection



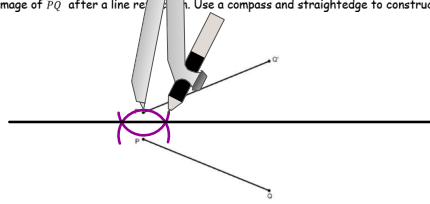
6) $A'(0,-1)$ is the image of $A(-3,5)$ after translation. If the coordinates of B are $(6,-2)$, what is B' , the image of B under the same translation.

$A(-3,5) \rightarrow A'(0,-1)$
 $T_{3,-6}$
 $B'(9,-8)$

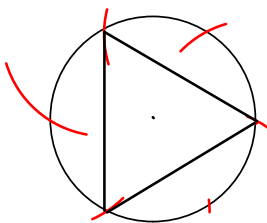
7) Construct the center of rotation for the transformation.



8) $P'Q'$ is the image of PQ after a line reflection. Use a compass and straightedge to construct the line of reflection.



9) Construct an equilateral triangle inscribed in a circle.



10) Construct a line perpendicular to line l through point A .

