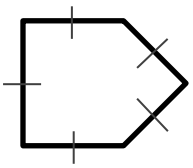
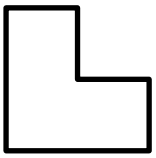
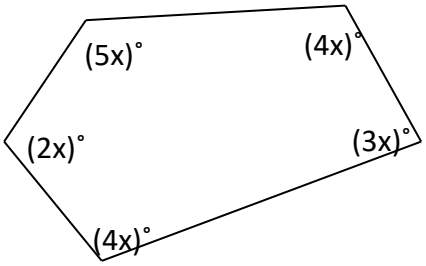
Geometry – 3rd Quarter Review Packet Name _____

Sections Covered

Chapter 6.1, 7.1-7.5, 9.1-9.5, 9.7, 5.7-5.8, 8.2-8.4, 10.1-10.5

Section 6.1

1. Tell whether the figure is regular or irregular. 	2. Tell whether it is concave or convex 
3. Find the sum of the measures of the interior angles in a 14-gon.	4. Given the pentagon, find x. 
5. Determine the number of sides a polygon has if the sum of the interior angles is 2340°.	6. Find the measure of each exterior angle of a regular 20-gon.
7. Find the measure of an interior angle in a regular nonagon.	8. Find the sum of the measures of the interior angles of a regular polygon if each exterior angle measures 30°.

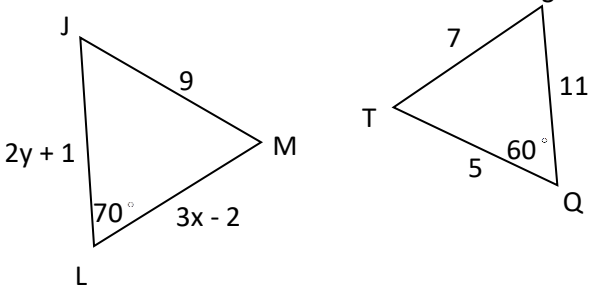
Section 7.1-7.5

1. If two figures are similar this means their angles are _____ and their sides are _____.

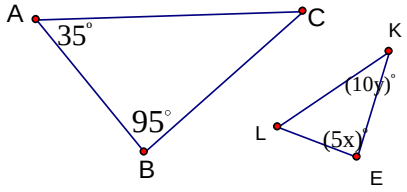
2. Solve for x:

$$\frac{2x-1}{7} = \frac{3x+5}{4}$$

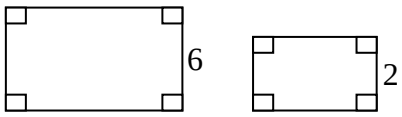
3. Given: $\Delta JLM \sim \Delta QST$ Find x and y



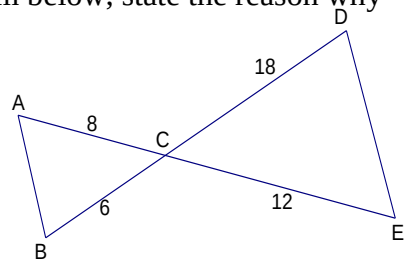
3. Given: $\Delta ABC \sim \Delta LEK$ Find x and y



4. If these two rectangles are similar, what is the ratio of their perimeters? What is the ratio of their areas?

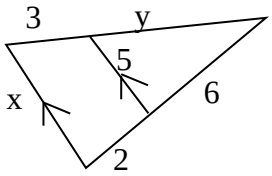


5. Given the diagram below, state the reason why $\Delta ABC \sim \Delta EDC$:



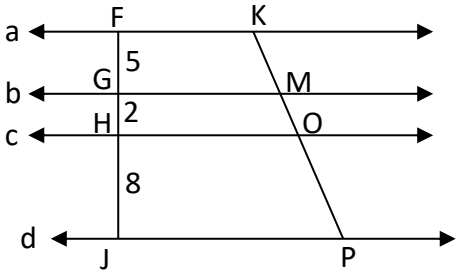
a. AA~
b. SAS ~
c. SSS ~
d. AAS ~
e. Triangles are not similar

7. Using the diagram below, find the value of x and y.

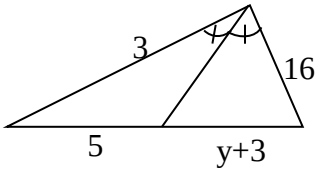


8. Dylan observed that a tree was casting a 30 ft shadow. A nearby house was casting a 20 ft shadow. If the house was 24 ft high, how tall was the tree?
Draw a picture to help☺

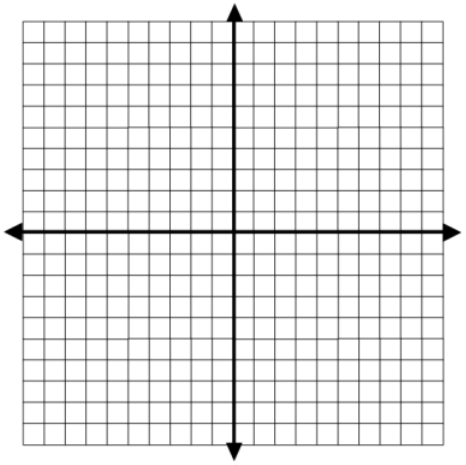
9. Given: a || b || c || d, lengths as shown below and KP = 24
Find: MO



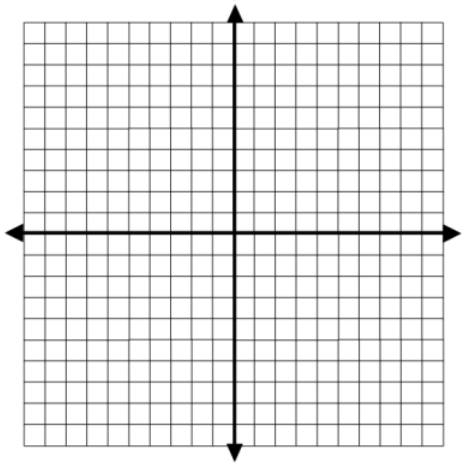
10. Using the diagram below, find the value of y.



11) Given the coordinates of A(-2, 4) and B(7, -2) find the coordinates of the point P on directed line segment $\overline{AB}$ that partitions $\overline{AB}$ in the ratio 1:2.

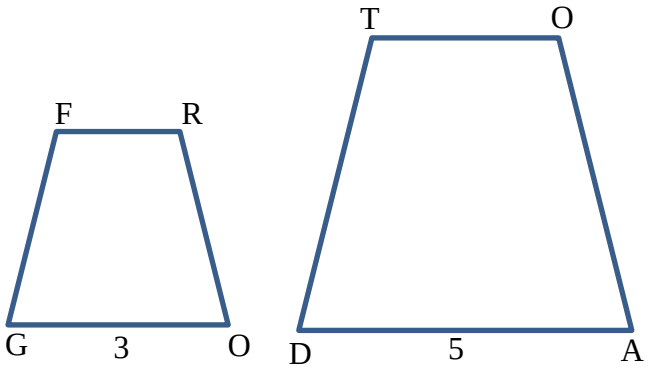


12) Given the coordinates of A(-3, -4) and B(5, 0) find the coordinates of the point P on directed line segment $\overline{AB}$ that partitions $\overline{AB}$ in the ratio 2:3.



13) Given: Quad FROG ~ Quad TOAD
Perimeter of Quad TOAD = 20 inches
Area of Quad TOAD = 30 inches^2

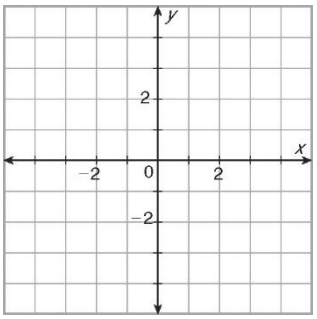
Find: the Perimeter and the Area of Quad FROG



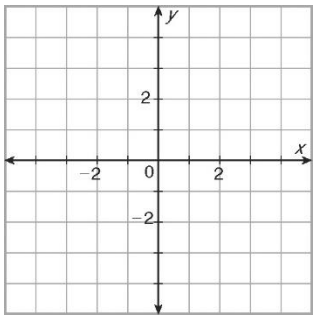
Sections 9.1-9.5, 9.7

Given the preimage of point A is located at (2, -4), find the image under the transformation.

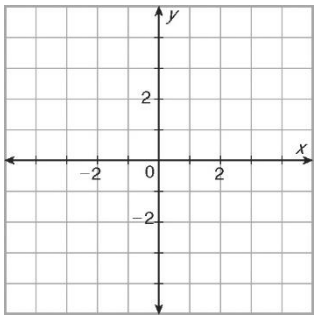
1) Reflected over the x-axis



2) Reflected over y- axis

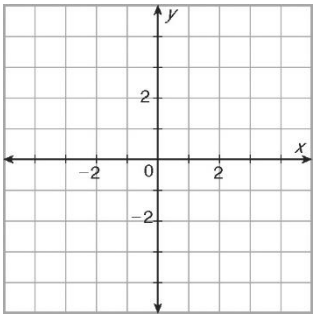


3) Reflected over y = x

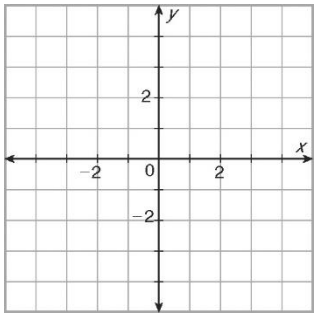


Given the preimage of point A is located at (2, -4), find the image under the transformation. (Rotations are about the origin)

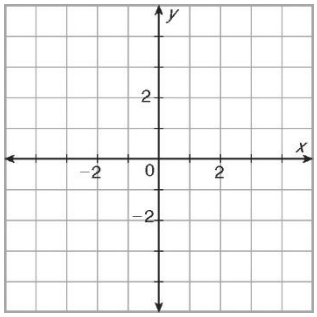
4) Rotated 90° Counterclockwise



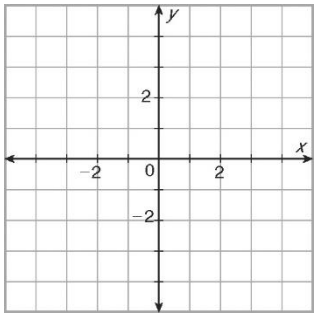
5) Rotated 90° Clockwise



6) Rotated 180° Counterclockwise

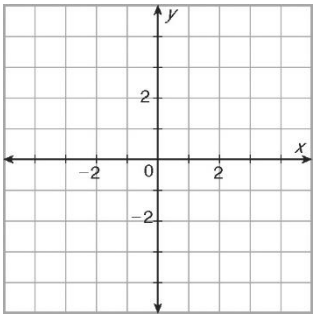


7) Rotated 180° Clockwise



Graph the following and graph the transformation given the vector.

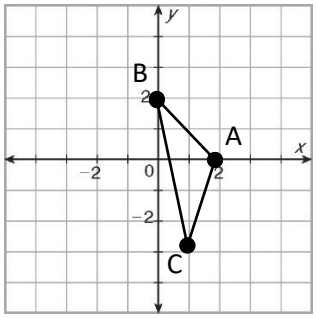
8) R (1, -1), S (-1,2), T (0, 3), U (4, 2) ; <-3, -1>



9) If B is at (50, -20) and B' is at (-300, -40), what is the translation vector?

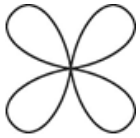
10) Point D (-2, -8) was mapped to point D'' (-3, 4) first by a reflection across the y-axis, and then by what translation vector?

11) Given $\triangle ABC$, A (2,0), B (0,2) and C (1, -3) Rotate 90° then translate by vector $\langle -2, 4 \rangle$

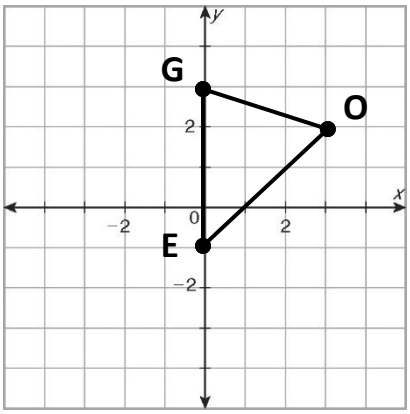


State if the figure in #12-13 has line symmetry or rotational symmetry. If it has rotational symmetry, give the angle and order.

12) 

13) 

14) Dilate ΔGEO about the center (1,1) with a scale factor of -2. Graph the image on the coordinate plane.



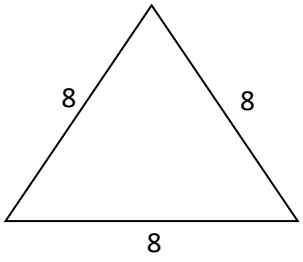
G'(____,____), E'(____,____), O'(____,____)

Sections 5.7-5.8, 8.2-8.4

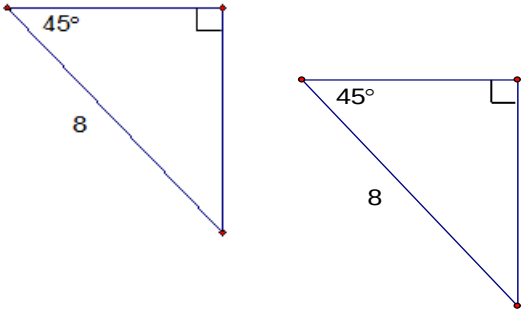
1) Determine if the side lengths of 6, 9, and 14 form a triangle. If so, classify the triangle as obtuse, right, or acute.

2) What is the sum of the lengths of the diagonals of an 8 by 15 rectangle?

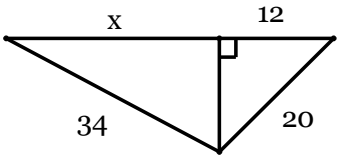
3) Find the altitude of the triangle below.



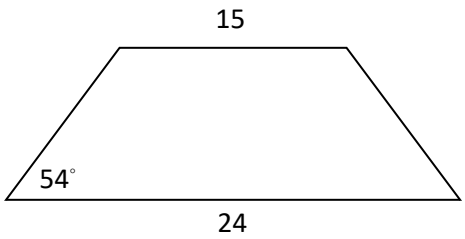
4) Find the missing side lengths of the right triangle.



5) Solve for x.

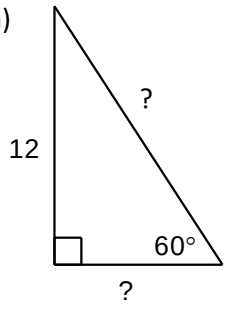


6) Find the height of the isosceles trapezoid.

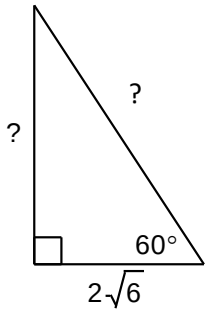


7) Solve for the missing sides.

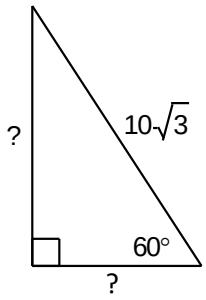
a)



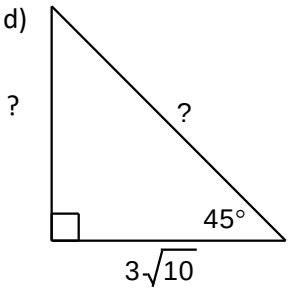
b)



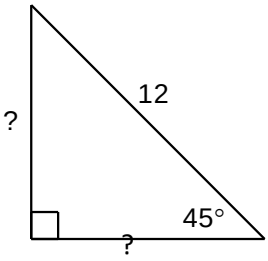
c)



d)



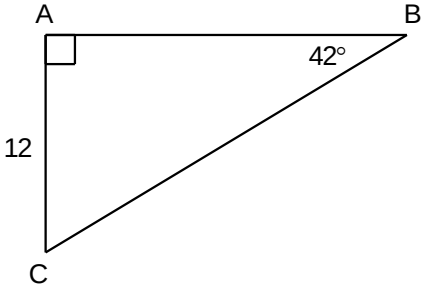
e)



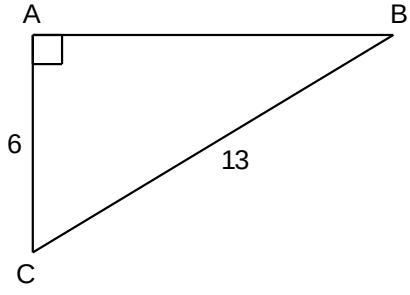
8) A boy was flying a kite and it got stuck in a tree. His mom determined that the kite was 34 feet up in the tree. If she had a 40 foot ladder and angled it toward the tree, what was the angle of elevation?

9) Solve all missing sides and angles of the right triangles below:

a)



b)



Study! Check your notes, rework problems, check SharePoint, study with a buddy, etc.