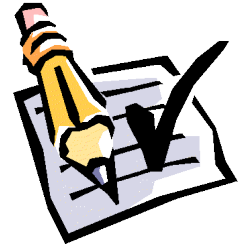


Name _____ Date _____ Hour _____

7th Grade Advanced – Unit 2 Assessment - Study Guide



The Term 2 Assessment will cover the following concepts:

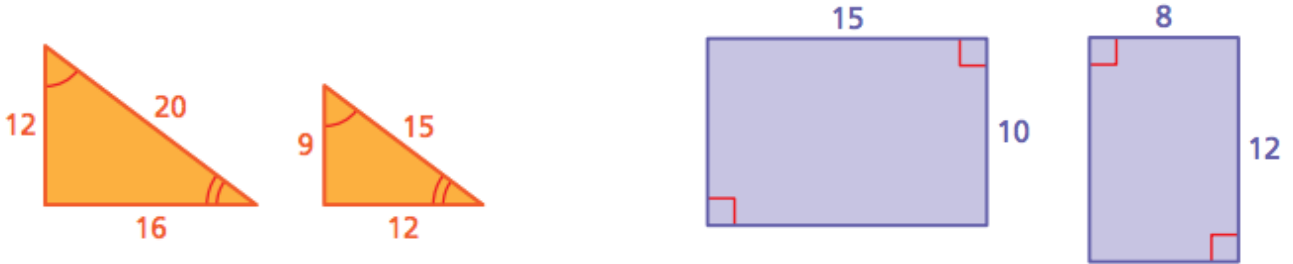
Unit 2 Concepts:

- 8- Finding Perimeter
- 9- Finding Areas
- 10- Constructing Transformations
- 11- Finding Similar Figures and Dilations
- 12- Applying Parallel Lines and Transversal Relationships
- 13- Finding Internal/External Angles of Polygons

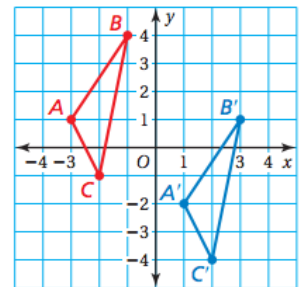
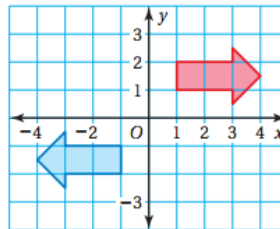
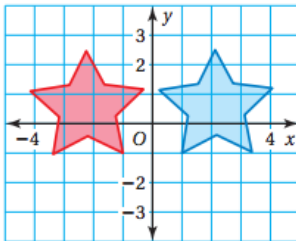
Part 1

Concept 10

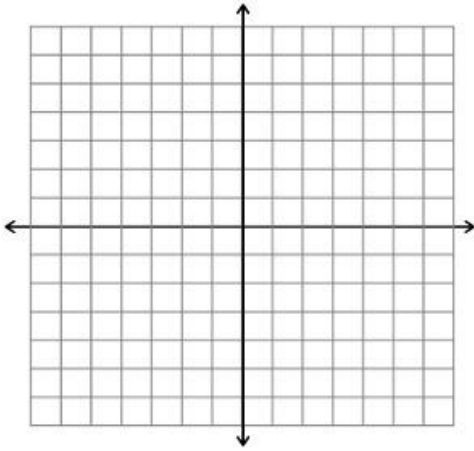
Determine whether or not the pairs of shapes below are congruent. Fully justify your answer.



Determine the type of transformation. Write the rule explaining what transformation occurred.

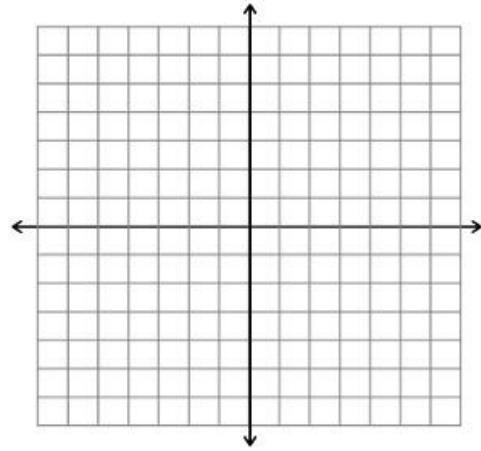


Perform the indicated transformation.



Graph and Rotate 90° CCW

<u>Original</u>	<u>Rotation</u>
N (-1,2)	
A (-3,5)	
P (-6,1)	

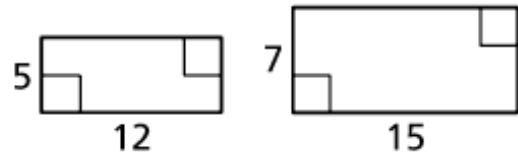
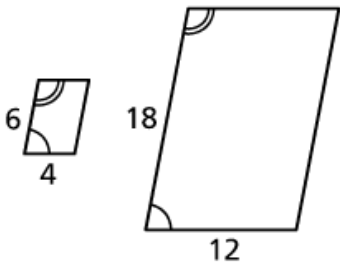


Graph and Translate $(x + 3, y - 3)$

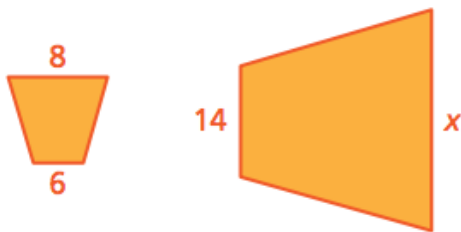
<u>Original</u>	<u>Translation</u>
M (1,1)	
A (2,4)	
W (3,1)	

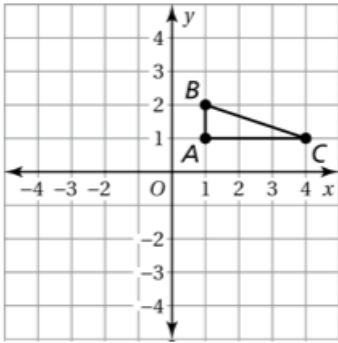
Concept 11

Determine whether or not the pairs below are similar. Fully justify your answer.



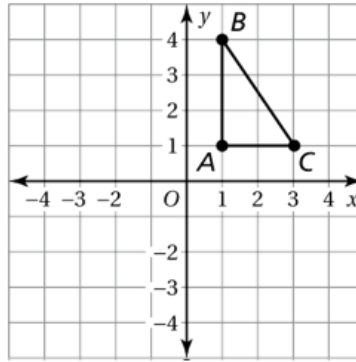
Find the missing value for each pair of similar shapes. Show your work.





Rotate 90° CCW. Then dilate the image by 2. Write the coordinates.

Original Rotation Dilation



Reflect upon the y-axis. Then dilate the Image by 0.5. Write the coordinates.

Original Reflection Dilation

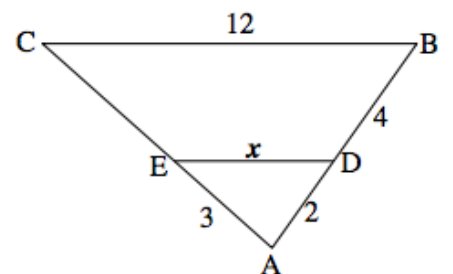
Using similar triangles (Indirect Measurement). Show all work and include diagrams for a) and b).

a) A 3-meter tall stick in the ground casts a 2.5m shadow. If a building is 25 meters tall, how long of a shadow would it cast?

b) Use the mirror method to find Tim's height.

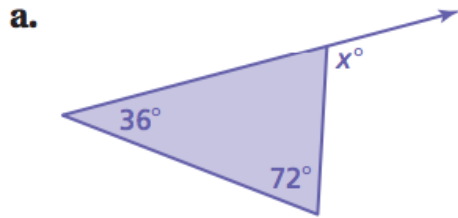
Distance from Tim to the mirror: 9 ft
 Distance from a poster to mirror: 3 ft
 Height of poster: 1.9ft

c) Find the value of x in the image.



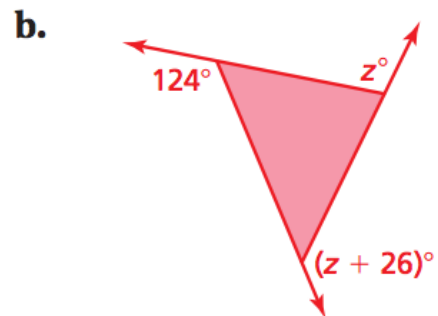
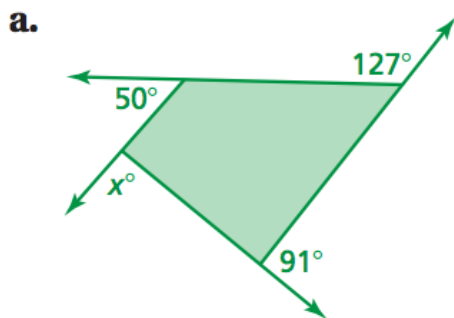
Concept 13

Find the measure of the external angle.



Find the sum of the internal angles of a regular 12-sided polygon.

Find the measure of the missing external angle(s).

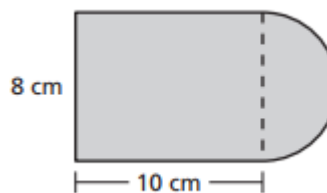
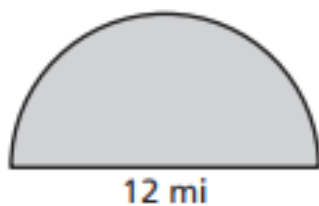
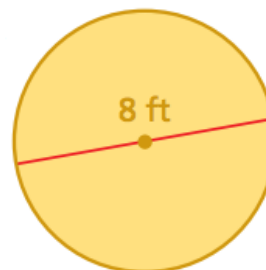
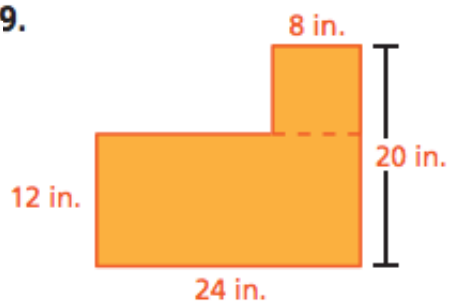


Part 2

Concept 8

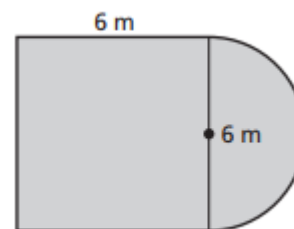
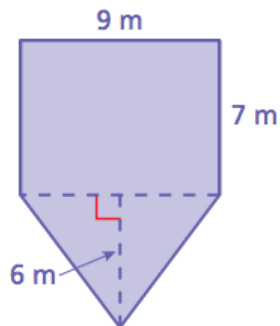
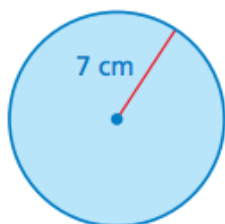
Find the perimeter for each shape. Round to the nearest tenth and include units.

9.



Concept 9

Find the Area of each shape. Round to the nearest tenth and include units.



A square table 4 feet on each side has two drop leaves, each a semicircle 4 feet in diameter.

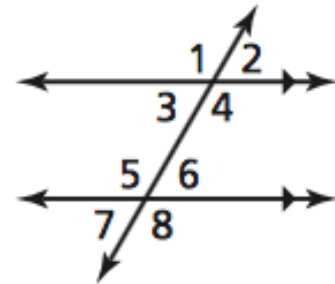


- Find the area of the table with and without the drop leaves.
- Find the perimeter of the table with and without the drop leaves.

Concept 12

Using the diagram below, complete the following (diagram may not be drawn to scale).

- _____ and $\angle 6$ are alternate interior angles.
- _____ and $\angle 5$ are corresponding angles.
- _____ and $\angle 8$ are vertical angles.



- If $\angle 2$ is 106° , then $\angle 4$ is _____.

Justify:

- If $\angle 4$ is 55° , then $\angle 5$ is _____.

Justify:

- If $\angle 7$ is 80° , then $\angle 1$ is _____.

Justify: