4.4 Name_____

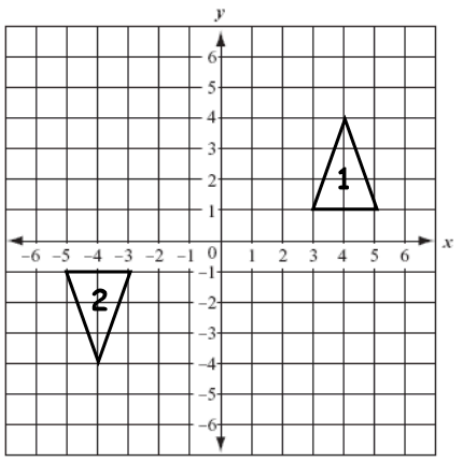
1. Change each degree to radian measure. Reduce all fractions.

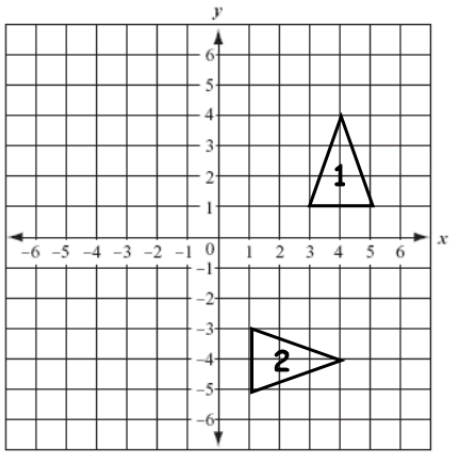
30 degrees **120 degrees** **90 degrees**

2. Find the length of AB to the nearest tenth. A(7,-3), B(-1,5). SHOW WORK!

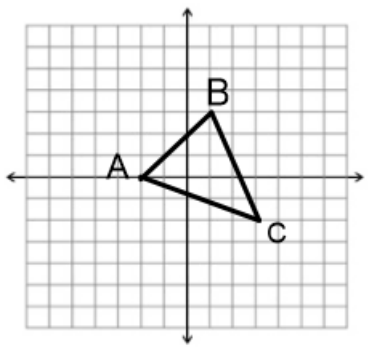
3. Name the four types of transformations. Circle the transformations that are rigid motions.

4. Describe the transformations that maps the first figure to the second figure.





5. List the vertices of the original triangle. Then complete the composition of a translation (x-1,Y+3) followed by a rotation of 90 degrees. List all new coordinates. In the end you should have three sets of coordinates listed.

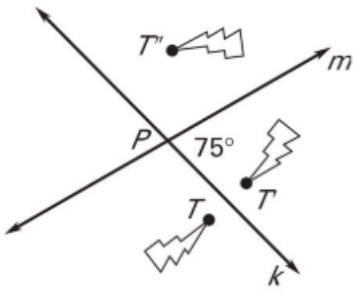


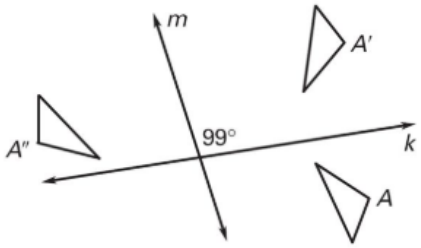
A
B
C

A'
B'
C'

A''
B''
C''

6. Find the angle of rotation that maps the points onto each other.





7.
a. A line that intersects the circle at two points is called a
b. Angles that sum to 90 degrees are called
c. A segment that intersects the circle at two points is a
d. What do you know about vertical angles?
e. If a polygon is regular then what two things are true?
f. An angle that is exactly 180 degrees is called
g. What kind of angle has a measure less than 90 degrees?
h. A segment that has one endpoint at the center of the circle and one endpoint on the circle is a
i. Coplanar lines that don't intersect are called
j. When lines intersect to form right angles they are called

8. Simplify

$3\sqrt{128}$ $(6\sqrt{7})^2$ $\sqrt{300}$ $\sqrt{64} + 5\sqrt{36} + 8\sqrt{100}$

9. Find the equation of a line that is perpendicular to the line y= 4x -5 and contains the point (12,-3).

10. Find the midpoint for the points M(3,9) and N(-11,-5). Write the formula and show your work.