02-07-Sample Quiz-Locus of Points & Triangle Centers

Multiple Choice
Identify the choice that best completes the statement or answers the question.

1. Based on the diagram, which is most likely the correct description of the distance from point A to the line m?
   a. 4 cm  
   b. 5 cm  
   c. 6 cm  
   d. 7 cm

2. Which diagram most likely shows the locus of all of the points in a plane equidistant between the point A and point B?
   a.  
   b.  
   c.  
   d.  
3. Based on the diagram and congruent marks, what would be the best description of Point D?

a. Incenter of $\triangle ABC$
b. Circumcenter of $\triangle ABC$
c. Centroid of $\triangle ABC$
d. Orthocenter of $\triangle ABC$

4. Which triangle center is found by the common intersection point of all of the perpendicular bisectors of a triangle?

a. Incenter
b. Circumcenter
c. Centroid
d. Orthocenter

5. Given that Point D is the center of the circle in the diagram, what would be the best description of Point D?

a. Incenter of $\triangle ABC$
b. Circumcenter of $\triangle ABC$
c. Centroid of $\triangle ABC$
d. Orthocenter of $\triangle ABC$
6. A person has opened 3 country restaurants in Gwinnett County Georgia in the cities of Buford, Dacula, and Lilburn.

She wants to set up a distribution center to supply the three restaurants and would like to find a central location that is equidistant from the 3 cities. Which triangle center might help her locate the position that is equidistant from all three cities?

a. Incenter
b. Circumcenter
c. Centroid
d. Orthocenter